



Hazard Warning Signs
Rigid PVC and Self-Adhesive.

Legislation
TIP

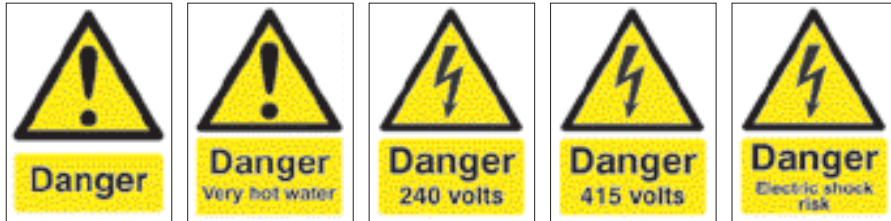
You have a legal responsibility to carry out a risk assessment of your premises, any hazards that cannot be eliminated, must be marked with a sign. Consider all potential hazards to both employees and visitors to your site.

Can't see the sign you need?



Design your own sign

See page 776



Design A Design B Design C Design D Design E



Design G Design H Design I Design J Design K



Design L Design M Design N Design O Design P Design Q



Design F



Design R Design S Design T Design U Design V Design W Design X

| Design | Dimensions (mm) | Type | Order Code |
|--------|-----------------|---------------|------------|
| A | 400 x 300 | Rigid PVC | -7797K |
| | 70 x 50 | Rigid PVC | -7340K |
| B | 210 x 148 | Rigid PVC | -6980K |
| | 210 x 148 | Self-Adhesive | -6990K |
| C | 210 x 148 | Rigid PVC | -7230K |
| | 210 x 148 | Self-Adhesive | -7240K |
| D | 210 x 148 | Rigid PVC | -2380K |
| | 210 x 148 | Self-Adhesive | -2390K |
| | 420 x 297 | Rigid PVC | -6490K |
| E | 210 x 148 | Rigid PVC | -2420K |
| | 210 x 148 | Self-Adhesive | -2430K |
| | 420 x 297 | Rigid PVC | -2440K |
| F | 210 x 148 | Rigid PVC | -7150K |
| | 210 x 148 | Self-Adhesive | -7160K |
| | 420 x 297 | Rigid PVC | -7170K |
| G | 420 x 297 | Rigid PVC | -7180K |
| | 210 x 148 | Self-Adhesive | -3550K |
| | 210 x 148 | Self-Adhesive | -3560K |

| Design | Dimensions (mm) | Type | Order Code |
|--------|-----------------|---------------|------------|
| H | 400 x 300 | Rigid PVC | -7250K |
| | 297 x 210 | Rigid PVC | -7800K |
| I | 297 x 210 | Self-Adhesive | -7801K |
| | 594 x 420 | Rigid PVC | -7802K |
| J | 420 x 297 | Rigid PVC | -3070K |
| | 594 x 420 | Rigid PVC | -7100K |
| K | 210 x 148 | Rigid PVC | -3610K |
| | 210 x 148 | Self-Adhesive | -3620K |
| L | 420 x 297 | Rigid PVC | -4990K |
| | 420 x 297 | Rigid PVC | -3300K |
| M | 210 x 148 | Rigid PVC | -3170K |
| | 210 x 148 | Self-Adhesive | -3180K |
| N | 420 x 297 | Rigid PVC | -3190K |
| | 210 x 148 | Rigid PVC | -7792K |
| O | 400 x 300 | Self-Adhesive | -7030K |
| | 210 x 148 | Rigid PVC | -2460K |
| | 210 x 148 | Self-Adhesive | -2470K |
| | 420 x 297 | Rigid PVC | -2500K |

| Design | Dimensions (mm) | Type | Order Code |
|--------|-----------------|---------------|------------|
| P | 297 x 210 | Rigid PVC | -7978K |
| | 420 x 297 | Rigid PVC | -7350K |
| Q | 297 x 210 | Rigid PVC | -7984K |
| | 297 x 210 | Self-Adhesive | -7985K |
| R | 420 x 297 | Self-Adhesive | -6950K |
| | 420 x 297 | Rigid PVC | -3090K |
| | 210 x 148 | Rigid PVC | -6940K |
| S | 210 x 148 | Self-Adhesive | -6950K |
| | 420 x 297 | Rigid PVC | -6960K |
| T | 210 x 148 | Rigid PVC | -7110K |
| | 420 x 297 | Self-Adhesive | -7120K |
| U | 420 x 297 | Rigid PVC | -7130K |
| | 420 x 297 | Rigid PVC | -6750K |
| V | 210 x 148 | Rigid PVC | -7986K |
| | 420 x 297 | Rigid PVC | -2360K |
| W | 210 x 148 | Rigid PVC | -3340K |
| | 420 x 297 | Self-Adhesive | -3350K |
| X | 420 x 297 | Rigid PVC | -3360K |
| | 297 x 210 | Rigid PVC | -7973K |
| | 210 x 148 | Rigid PVC | -7814K |
| | 210 x 148 | Self-Adhesive | -7815K |



Construction Signs

General Construction Signs

Ensure safe site navigation with this range of durable 1mm rigid plastic construction signs.



Design A



Design B



Design C



Design D



Design E



Design F



Design G



Design H



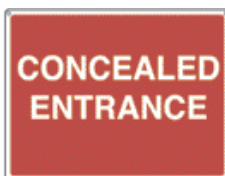
Design I



Design J



Design K



Design L



Design M



Design N

| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| A | 450 x 600 | Rigid PVC | -5490K |
| B | 450 x 600 | Rigid PVC | -5500K |
| C | 450 x 600 | Rigid PVC | -5510K |
| D | 450 x 600 | Rigid PVC | -5520K |
| E | 450 x 600 | Rigid PVC | -5530K |

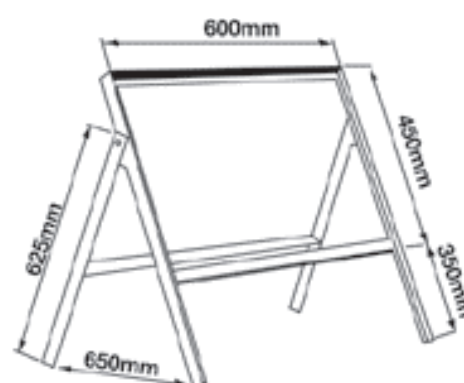
| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| F | 450 x 600 | Rigid PVC | -5540K |
| G | 450 x 600 | Rigid PVC | -5550K |
| H | 450 x 600 | Rigid PVC | -5560K |
| I | 450 x 600 | Rigid PVC | -5570K |
| J | 450 x 600 | Rigid PVC | -5580K |

| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| K | 450 x 600 | Rigid PVC | -5590K |
| L | 450 x 600 | Rigid PVC | -5600K |
| M | 450 x 600 | Rigid PVC | -5610K |
| N | 450 x 600 | Rigid PVC | -5620K |

Temporary Stanchions

These robust stanchions are the ideal way of displaying signs on a temporary basis.

- Made from steel and painted with primer to discourage rusting.
- Clips are provided for retaining either two signs into the double-sided stanchion or one sign into the single-sided.



| Product Number | Design | Type | Order Code SSF-964 |
|----------------|--------------|-------|-----------------------|
| STA10 | Double-sided | Steel | -6590K |
| STA01 | Single-sided | Steel | -6580K |

Detachable Scaffolding Safety Signs



Design A



Design B



Design C



Design D



Design E



Design F



Design G

0.3mm Aluminium Outer Layer. Polyethylene Core

| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| A | 500 x 300 | Aluminium | -6930K |
| B | 500 x 300 | Aluminium | -6890K |
| C | 500 x 300 | Aluminium | -6920K |

| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| D | 500 x 300 | Aluminium | -6900K |
| E | 500 x 300 | Aluminium | -6870K |
| F | 500 x 300 | Aluminium | -6880K |

| Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|-----------|-----------------------|
| G | 500 x 300 | Aluminium | -6910K |

Large order?
Please contact us for a quote.



Class Ref 2 Reflective Traffic & Works Safety Signs

- Manufactured from 3mm Dibond with a durable Class Ref 2 reflective face.
- Comply with BS EN12899-1.
- Suitable for wall or post mounting.



Design A



Design B



Design C



Design D



Design E



Design F



Design G



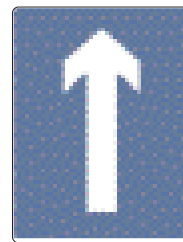
Design H



Design I



Design J



Design K

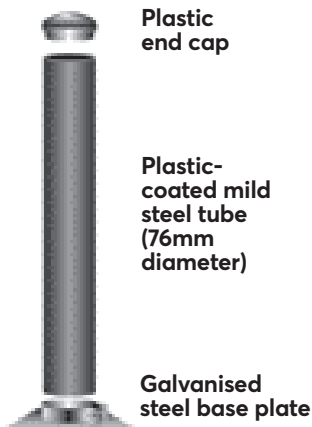


Design L

| Design | Dimensions (mm) | Type | Order Code SSF-964 | Design | Dimensions (mm) | Type | Order Code SSF-964 | Design | Dimensions (mm) | Type | Order Code SSF-964 |
|--------|-----------------|----------|-----------------------|--------|-----------------|----------|-----------------------|--------|-----------------|----------|-----------------------|
| A | 600 x 680 | Post Fix | -7759K | E | 600 x 600 | Post Fix | -7721K | I | 450 x 600 | Post Fix | -7750K |
| | 600 x 680 | Wall Fix | -7771K | | 600 x 600 | Wall Fix | -7761K | | 450 x 600 | Wall Fix | -7765K |
| B | 600 x 600 | Post Fix | -7753K | F | 600 x 600 | Post Fix | -7720K | J | 450 x 600 | Post Fix | -7757K |
| | 600 x 600 | Wall Fix | -7760K | | 600 x 600 | Wall Fix | -7763K | | 450 x 600 | Wall Fix | -7769K |
| C | 600 x 600 | Post Fix | -7758K | G | 450 x 600 | Post Fix | -7755K | K | 600 x 450 | Post Fix | -7754K |
| | 600 x 600 | Wall Fix | -7770K | | 450 x 600 | Wall Fix | -7767K | | 600 x 450 | Wall Fix | -7766K |
| D | 600 x 600 | Post Fix | -7751K | H | 450 x 600 | Post Fix | -7756K | L | 600 x 680 | Post Fix | -7752K |
| | 600 x 600 | Wall Fix | -7762K | | 450 x 600 | Wall Fix | -7768K | | 600 x 680 | Wall Fix | -7764K |

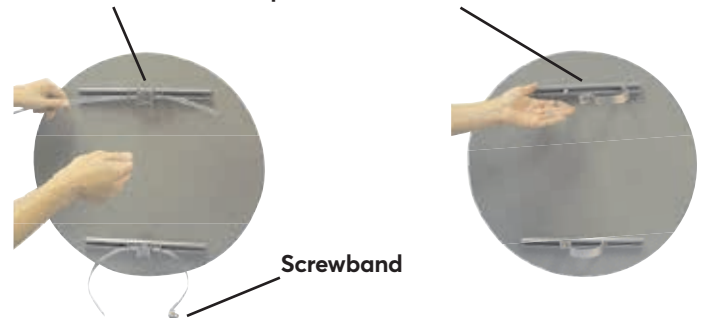
Posts and Fixings

- We recommend the use of a baseplate to allow approximately 600mm sink below the ground.
- The screwband fixing and universal channel clamp will allow fixing to existing posts up to 160mm in diameter.
- Each sign requires 2 x 76mm clips, or two each of the screwband and universal fixing clamp for post fixing.



Universal Channel Clamp

76mm Clips



Screwband

| Description | Order Code SSF-964 |
|----------------------------|-----------------------|
| 2.5m Grey Post | -7877K |
| Grey Plastic End Cap | -7876K |
| Galvanised Steel Baseplate | -7875K |
| 76mm Clips (Pk-2) | -7795K |
| Screwband Fixing | -7956K |
| Universal Channel Clamp | -7974K |



A must for all ladders, kick stools and podiums.

- Regular and detailed inspections of ladders, both temporary and fixed, must be carried out.
- Laddertag® is robust and highly visible, displaying information on the ladder class and inspection period.
- The reverse of the insert displays a quick reference inspection checklist.
- Laddertag® Kit contains 10 holders, 10 inserts and one pen.
- We recommend that the Wallchart should be used to highlight safety awareness.



Insert



Holder



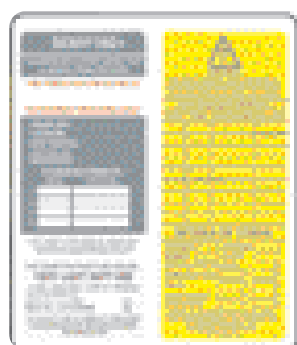
Wallchart

| Description | Order Code |
|---------------------------------------|----------------|
| | SSF-964 |
| Laddertag Kit | -9009A |
| Laddertag Inserts (Pk 10) | -9009N |
| Laddertag Inserts (Pk 50) | -7894K |
| Ladder Inspection Pocket Guide (Pk 5) | -9010B |
| Laddertag Holders (Pk 10) | -9011B |
| 600 x 420 Ladder Inspection Guide | -9012M |
| Ladder Yellow Book | -7893K |

Towertag®

Ideal for all types of mobile towers.

- Working in the same fashion as Scafftag® (opposite) the up-to-date status of the tower is instantly visible.
- The insert allows specific information on the movement of each tower scaffold and maximum safe working loads to be clearly displayed at the point of use.
- Simply slide the insert into the 'DO NOT USE SCAFFOLD' all weatherproof, UV resistant holder.
- The Towertag® Kit (SCF06) includes 10 holders, 20 standard inserts and 2 pens.
- A wallchart is also available to train employees and create awareness of this unique product.



Insert



Holder



Wallchart

| Description | Order Code |
|--------------------------------------|----------------|
| | SSF-964 |
| Towertag Kit | -9007M |
| Towertag Inserts (Pk 10) | -9008B |
| Towertag Inserts (Pk 50) | -7972K |
| Tower Inspection Pocket Guide (Pk 5) | -9008N |
| 600 x 420 Alum & Fibreglass Tower | -9011M |

Plant & Machinery Microtag®

The most popular status management system for electrical testing.

- Enables maximum visibility with minimal attachment space, the tags are a heavy-duty alternative to labels which are prone to damage in industrial environment.
- The holder displays 'DO NOT USE EQUIPMENT' prior to inspection when a choice of three colour inserts are available to use.
- The holder can be attached to the equipment with adhesive or to the power lead with cable ties.
- Plant & Machinery Microtag® Kit contains 20 holders, 40 cable ties (150mm long) and 1 pen. Inserts are available separately.



Inserts



Holder



-7928R

-7928G

-7928Y

| Description | Order Code |
|--------------------------------|----------------|
| Microtag Kit | SSF-964 |
| Microtag Insert Green (Pk 20) | -7928G |
| Microtag Insert Red (Pk 20) | -7928R |
| Microtag Insert Yellow (Pk 20) | -7928Y |
| Microtag Holders (Pk 20) | -7898K |

SITESAFE Scafftag An Introduction . . .

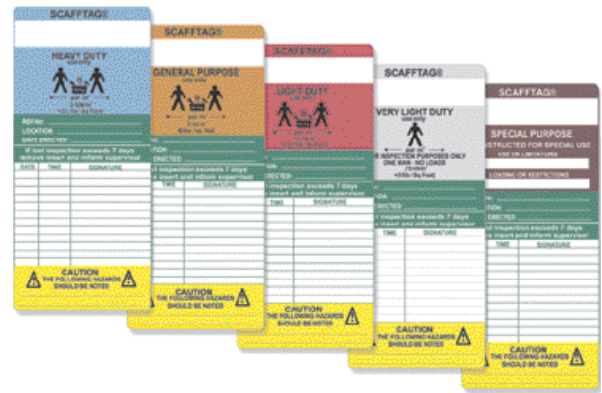
Status Management Systems Scafftag® is the innovative tagging system which creates a complete safety management system for your workplace. The tagging system comprises of two components, a permanent holder which is attached to the equipment and a replaceable status insert.

Key benefits:

- Empowers employees to make informed and accurate decisions by making information instantly visible.
- Allows the tracking, usage, maintenance and inspection status of equipment helping safeguard employees and others.
- Ensures your company complies with key working legislation:
 - Health and Safety at Work Act 1974
 - Management of Health and Safety at Work Regulations 1999.
 - Construction (Health, Safety and Welfare) Regulations 2007.
- Fitted to all legal access points the unique holder and insert ensure that the latest scaffold status is instantly visible from the scaffold buildstage to dismantle.
- The Scafftag® Kit (SCF01) includes 10 holders, two standard inserts and two pens. Replacement inserts are available in packs of 10 and 50.
- We recommend that you accompany your Scafftag® equipment with the Wallchart and Pocket Guide (semi-rigid PVC). These will increase employee knowledge and encourage the use of Scafftag® into their routine.



Holder Prohibition Insert Standard Inspection Insert



| Product Number | Description | Pack Quantity | Order Code SSF-964 |
|----------------|---|---------------|-----------------------|
| SCF01 | Scafftag® Kit | 1 | -9005A |
| SCF02A | Prohibition Inserts | 10 | -9005N |
| SCF02B | Prohibition Inserts | 50 | -7930K |
| SCF03A | Standard Inspection Inserts | 10 | -9006B |
| SCF03B | Standard Scafftag® Mk1 Inserts | 10 | -7967K |
| SCF04B | Scafftag® Load Classification Inserts | 50 | -7955K |
| SCF28 | Scafftag® Holders | 10 | -9010N |
| SCF05 | Scaffold Inspection Pocket Guide | 5 | -7950K |
| WC209 | 600 x 420mm Wall Chart | 1 | -7949K |
| SCF33 | Scaffold Inspection Report - Blue Book | 1 | -7951K |
| SCF35 | Scaffold Inspection Report - Green Book | 1 | -7948K |

Load Classification Table

| Colour | Load Classification | Pack Quantity | Order Code SSF-964 |
|--------|---------------------|---------------|-----------------------|
| Grey | Very Light-Duty | 10 | -9006L |
| Pink | Light-Duty | 10 | -9006S |
| Orange | General-Purpose | 10 | -9006T |
| Blue | Heavy-Duty | 10 | -9006V |
| Maroon | Special-Purpose | 10 | -9006W |

Isotag®

Isotag® is a complete tagging system to help control mechanical and electrical isolation procedures.

- Current operational status is instantly visible to all individuals.
- Prevents the inadvertent energising of a system, reducing the potential for accident.
- Two-part perforation allows tag to remain on asset with permitting authority holding detached section.
- Both parts can be consolidated when task has been completed.



| Description | Pk Qty | Order Code SSF-964 |
|-------------|--------|-----------------------|
| Isotag® | 10 | -7886K |
| Isotag® | 50 | -7887K |

MATLOCK Swivel Harness Snap Hook

A general-purpose hook ideal for keys, leashes and holdalls.



| Length x Eye (mm) | Finish | Order Code MTL-978 |
|---------------------|---------------|--------------------|
| 76 x 20 (3" x 3/4") | Nickel-Plated | -4540K |

Swivel Spring Billet Hook

Animal leash clips for chains, with swivel to prevent knotting and twisting.



| Length (mm) | Finish | Order Code MTL-978 |
|-------------|---------------|--------------------|
| 57 (2 1/4") | Nickel-Plated | -4510K |

Ring On Plate

For tethering animals, mooring small boats, and securing equipment.



| Ring x Plate (mm) | Finish | Order Code MTL-978 |
|-------------------|------------|--------------------|
| 50 x 50 (2" x 2") | Galvanised | -4740K |

Staple On Plate

A comprehensive range of accessories to suit flexible connectors, ropes and chains. For permanently fixing chain or rope to a wall, fence or post.



| Staple x Plate (mm) | Finish | Order Code MTL-978 |
|---------------------|------------|--------------------|
| 50 x 50 (2" x 2") | Galvanised | -4720K |

Hook On Plate

End fitment for mounting on to fence posts or walls.



| Hook x Plate (mm) | Finish | Order Code MTL-978 |
|-------------------|------------|--------------------|
| 50 x 50 (2" x 2") | Galvanised | -4700K |

Cleat Hooks

Cast iron hooks generally for use with pulleys.



| Length (mm) | Finish | Order Code MTL-978 |
|-------------|--------------|--------------------|
| 75 (3") | Electro-Galv | -4620K |
| 100 (4") | Electro-Galv | -4630K |
| 150 (6") | BZP | -4640K |

Wire Rope Grips

To grip the return ends of wire rope when in a loop. For rope grips shackles supplied with certificates of conformity please.



| Wire Rope Dia. (mm) | Finish | Pack Qty | Order Code MTL-978 |
|---------------------|------------|----------|--------------------|
| 3 (1/8") | Galvanised | 4 | -5010K |
| 5 (3/16") | Galvanised | 4 | -5020K |
| 6 (1/4") | Galvanised | 4 | -5030K |
| 8 (5/16") | Galvanised | 2 | -5040K |
| 10 (3/8") | Galvanised | 2 | -5060K |
| 13 (1/2") | Galvanised | 2 | -5070K |

Dee Shackles

A coupling link for chain and rope with a 'D' shape to prevent excess movement. Material and pin diameters are equal except where stated. Rated loads are for guidance only - 'tested' dee shackles are available to order.



| Material x Pin Dia. (mm) | Finish | Pack Qty | Order Code MTL-978 |
|--------------------------|------------|----------|--------------------|
| 5 (3/16") | Galvanised | 4 | -4320K |
| 6 (1/4") | Galvanised | 4 | -4330K |
| 8 (5/16") | Galvanised | 2 | -4340K |
| 10 (7/16") | Galvanised | 2 | -4350K |
| 12 (1/2") | Galvanised | 2 | -4360K |
| 16 (5/8") | Galvanised | 2 | -4370K |
| 4 (5/32") | St. Steel | 2 | -4380K |
| 5 (3/16") | St. Steel | 2 | -4390K |
| 6 (1/4") | St. Steel | 2 | -4400K |
| 8 (5/16") | St. Steel | 2 | -4410K |

Carbine Hooks

Quick release hook for connecting to chain or rope.



| Dia. x Length (mm) | Finish | Pack Qty | Order Code MTL-978 |
|--------------------|------------|----------|--------------------|
| 5 x 50 (2") | Galvanised | 2 | -4120K |
| 6 x 60 (2 3/8") | Galvanised | 2 | -4130K |
| 7 x 70 (2 3/4") | Galvanised | 2 | -4140K |
| 8 x 80 (3 1/8") | Galvanised | 2 | -4150K |
| 10 x 100 (4") | Galvanised | 2 | -4160K |
| 4 x 40 (1 9/32") | St. Steel | 2 | -4180K |
| 5 x 50 (2") | St. Steel | 2 | -4181K |
| 6 x 60 (2 3/8") | St. Steel | 2 | -4182K |
| 8 x 80 (3 1/8") | St. Steel | 2 | -4183K |

Bow Shackles

A coupling link with a bow shape to allow extra clearance for more than one length of chain or rope. Material and pin diameters are equal except where stated. Rated loads are for guidance only. 'Tested' bow shackles are available to order.



| Material x Pin Dia. (mm) | Finish | Order Code MTL-978 |
|--------------------------|------------|--------------------|
| 6 (1/4") | Galvanised | -4420K |
| 10 (3/8") | Galvanised | -4440K |
| 13 (1/2") | Galvanised | -4450K |

Elastic Shock Cord

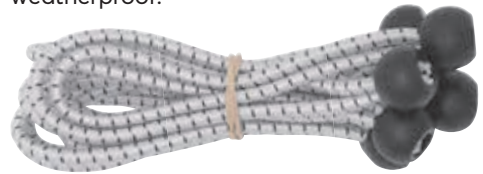
Manufactured from hard-wearing and rot-proof elastic shock cord with a multi-stranded elastic core, the outer polythene cover is UV-resistant, weatherproof and heat cut and sealed to prevent fraying. Ideal for securing awkward items etc.



| Size | Order Code MTL-978 |
|----------|--------------------|
| 6mm x 8m | -6560K |
| 8mm x 8m | -6580K |

Tarpaulin Cord Ball Ties

Manufactured from hard-wearing and rot-proof 5mm elastic shock cord with a multi-stranded elastic core, the outer polythene cover is UV-resistant and weatherproof.



| Size | Order Code MTL-978 |
|-------------|--------------------|
| 150mm (6") | -9160K |
| 250mm (10") | -9200K |

Polyester White Sash Cord

100% polyester with low stretch and high abrasion resistance. Suitable for use on sash windows and for all year outdoor use. UV and weather resistant and easy to handle, knot and splice. 8 plait construction.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|-------------------|-------------|--------------------|
| 6mm x 10m | 225g | -5610K |
| 6mm x 100m | 3.02kg | -5920K |

Polyester Rope

6mm x 100m reel. No.4 type. 8 plait construction. Centre core. 100% polyester. Multi-filament. High tenacity. Round section. Easy to handle, knot and splice. High abrasion-resistance. Resistant to organic and mineral acids, oxidising agents and diluted alkalis. UV-resistant. Weather-resistant. Low stretch. Smooth running. A general-purpose high strength rope, suitable for repairing sash windows.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|-------------------|-------------|--------------------|
| 6mm x 100m | 2.3kg | -5620K |

Rope & Cargo Straps

MATLOCK Jute Rope

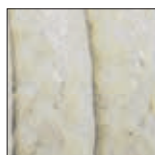
6mm x 10m hank and 00m reel. No.4 type. Eight plait construction with core. 100% natural jute fibre. Rustic feel. Knots well. Hard-wearing and tactile. Resistant to heat and fire. Low stretch. Fully biodegradable. Store in a dry place. A general-purpose rope used by builders, DIY and gardeners.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|----------------------|----------------|-----------------------|
| 6mm x 10m | 185g | -5510K |
| 6mm x 100m | 1850g | -5520K |

Waxed Cotton Rope

6mm x 10m hank and 100m reel. No.4 type. 16 plait construction. Waxed for longer life. Polypropylene core for added strength. Hard-wearing and tactile. Weather-resistant. Low stretch. Smooth running. Used in the building trade and DIY for sash window repair, household refurbishment and outdoor use.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|----------------------|----------------|-----------------------|
| 6mm x 10m | 240g | -5710K |
| 6mm x 100m | 2.4kg | -5720K |

Cargo Strap

Moulded out of custom compounded rubber (50%) with reinforced ends. Strong end hooks, zinc-plated for added rust protection.



| Size Length x Width | Weight each | Order Code MTL-978 |
|------------------------|----------------|-----------------------|
| 400 x 40mm | 134g | -4200K |

Industrial Load Straps

Load Strap Plain End

Supplied as a single strap with ratchet unit attached to one end. Tension is applied by looping the strap around the cargo and threading back through the ratchet. Designed to safely secure cargo for transport. **EN12195-2.**



| Size (Width x Length) | Min. Breaking load | Order Code MTL-978 |
|--------------------------|-----------------------|-----------------------|
| 25mm x 2.5m | 300kg | -8020K |
| 25mm x 4.5m | 800kg | -8040K |
| 25mm x 4.5m | 1,000kg | -8060K |
| 25mm x 4.5m | 5,000kg | -8070K |
| 25mm x 6.0m | 800kg | -8080K |
| 25mm x 6.0m | 1,000kg | -8100K |
| 25mm x 6.0m | 5,000kg | -8110K |
| 25mm x 7.5m | 2,000kg | -8120K |
| 25mm x 7.5m | 2,500kg | -8140K |
| 50mm x 8.0m | 5,000kg | -8180K |

Hi Vis Braided Cord

4mm x 100m reel. Solid 16 plait construction. Highly flexible with polypropylene for added strength and durability, weather-resistant and will float on water. Low stretch and smooth running.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|----------------------|----------------|-----------------------|
| 4mm x 100m | 600g | -6840K |

Polished Cotton Rope

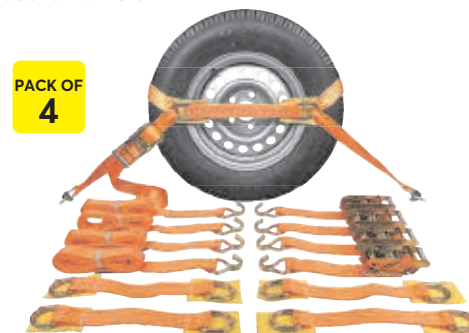
6mm x 10m hank. No.8 type. Solid 12 braid construction. Centre core. 100% pure cotton. Traditional red spot design. Polished finish for longer life. Round section. High abrasion resistance. Moisture-resistant. Low stretch. Smooth running. For sash window repair and industrial and domestic pulley systems.



| Size Dia x Length | Weight each | Order Code MTL-978 |
|----------------------|----------------|-----------------------|
| 6mm x 10m | 285g | -5910K |

Complete Vehicle Recovery Strap

Designed to safely secure vehicle for transport.



| | |
|-----------------------|--------|
| Order Code MTL-978 | -8750K |
|-----------------------|--------|

Hook-Ended Two-Part Load Strap

Supplied as two pieces. Designed to safely secure cargo for transport.



| Size (Width x Length) | Min. Breaking load | Order Code MTL-978 |
|--------------------------|-----------------------|-----------------------|
| 25mm x 4.0m | 1,500kg | -8300K |
| 50mm x 4.0m | 4,000kg | -8320K |
| 25mm x 4.5m | 800kg | -8340K |
| 25mm x 4.5m | 1,000kg | -8360K |
| 50mm x 5.0m | 2,000kg | -8370K |
| 25mm x 6.0m | 1,000kg | -8380K |
| 25mm x 6.0m | 1,500kg | -8400K |
| 50mm x 8.0m | 1,500kg | -8470K |
| 35mm x 6.0m | 3,000kg | -8420K |
| 35mm x 7.5m | 2,000kg | -8440K |
| 35mm x 7.5m | 2,500kg | -8460K |
| 50mm x 6.0m | 4,000kg | -8430K |
| 50mm x 8.0m | 4,000kg | -8480K |
| 50mm x 8.0m | 5,000kg | -8500K |
| 50mm x 9.0m | 4,000kg | -8540K |
| 50mm x 9.0m | 5,000kg | -8560K |
| 50mm x 10.0m | 4,000kg | -8600K |
| 50mm x 10.0m | 5,000kg | -8620K |
| 75mm x 10.0m | 10,000kg | -8640K |
| 75mm x 15.0m | 10,000kg | -8680K |
| 75mm x 20.0m | 10,000kg | -8710K |



Effective solution that guarantees satisfactory BARRIER CONTROL in any environment

Traditional systems for controlling people traffic using standard barriers connected via a chain or belt going pole to pole are associated with the continuous problems of maintaining a safe place to work. Even expanding barriers or self-retractable barriers could break, fall down or blow away exposing people to unnecessary and unacceptable risk. The cumbersome nature of the sturdier systems also limits their usability, making them less flexible and impairs their portability. These problems are magnified in areas that have to cope with work space restrictions and hazardous working conditions such as those found in the offshore gas and oil industry. Barriers are a key requirement of the Health and Safety (Safety Signs and Signals) Regulations.

The 'Z-Barrier' system is the most innovative improvement in temporary safety barriers and provides an effective solution that guarantees satisfactory barrier control in any work environment.

'Z-Barriers' are patent pending for the unique design that ensures barriers are prominent and remain in position, for all physical and environmental conditions. Manufactured from a unique, reinforced PVC-based double-sided warning tape, with a high visibility day glow pattern on one face and a night reflective pattern on the other face.

These are the most visible barriers available on the market today. Quick and easy to put up, they are easily fastened to any anchor point or each other, providing a flexible barrier across any opening, around objects or in multiple directions. Elastic properties allow 'Z- Barriers' to expand and fit between points instead of being cut to length. They are inherently shock absorbing and resist any degree of wind load to prevent damage.



Other signs available on request, specials can be made to order.

A4 Sign Pockets (shown above)

The flexible and robust sign pockets were designed to allow users to quickly and effectively create their own signage. All you need is a pen and paper. However we do supply a range of standard signs that will fit the pockets. The most popular designs are shown here.

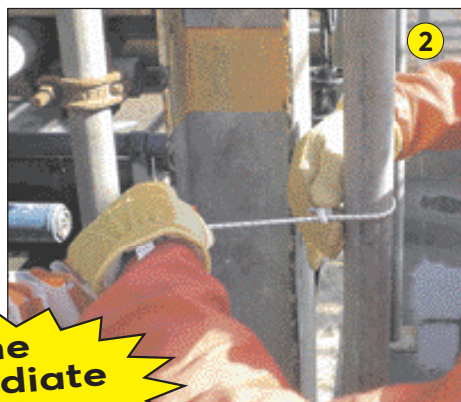
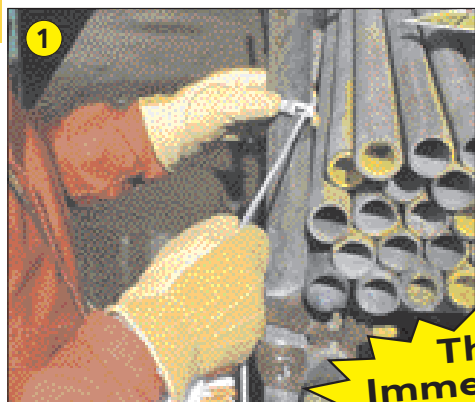
Order Code
MTL-992
-7010K

Safety Signs to suit Z-Barrier Sign Pockets (shown above)

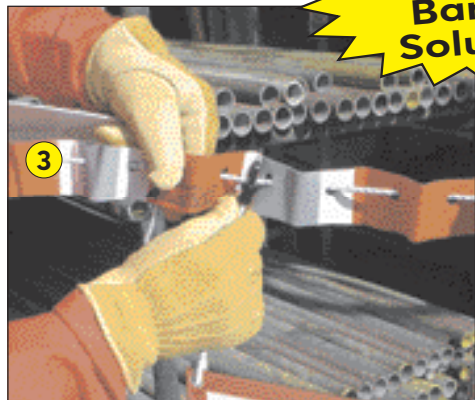
Rigid PVC signs which can also be used independently on flat surfaces to further highlight restrictions. **Size: 200 x 300mm.**

Other signs available - see Group 964

| Text | Order Code |
|-----------------------------|----------------|
| | SSF-964 |
| Danger Men Working Overhead | -7400K |
| Slippery Floor | -7410K |
| Strictly No Admittance | -7420K |
| No Admittance Symbol | -7430K |
| No Entry | -7440K |



The Immediate Barrier Solution



Individual Z-Barriers



Yellow/Black

| Size | Expansion Range | Order Code |
|---------------------|-----------------|---------------|
| White/Red | | |
| 1 | 1 - 2m | -5010K |
| 2 | 2 - 4m | -5020K |
| 3 | 3 - 6m | -5030K |
| Yellow/Black | | |
| 1 | 1 - 2m | -9301K |
| 2 | 2 - 4m | -9302K |
| 3 | 3 - 6m | -9303K |
| 1, 2, 3 | 1 - 6m | -9322K |

Z-Barrier Starter Pack

Contents: 10x size 1, 5x size 2 and size 3 and 2x sign pockets.



Colour
White/Red

Order Code
MTL-992
-9010K

Z Barrier High Visibility Heavy Duty Bag

With two shoulder straps, a carry handle and a drawstring at the top.



Order Code
MTL-992
-3500K

MATLOCK Post & Chain Barriers

Ideal to cordon off an area or to form a channel for queuing. Suitable for warehouses, factories, offices, leisure venues etc. Support posts, bases and chain packs sold separately.

Chain Support Post with Cap
Height: 910mm. Diameter: 50mm.

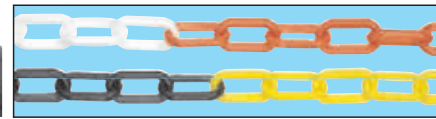
| Colour | Order Code |
|--------------|---------------|
| White/Red | -2840D |
| Yellow/Black | -2860F |

Chain Support Post Bases

| Colour | Weight (kg) | Order Code |
|------------|-------------|---------------|
| Standard | 1.9 | -2720B |
| Heavy-Duty | 3.3 | -2740D |

25m Chains

| Colour | Chain Diameter | Order Code |
|--------------|----------------|---------------|
| Red/White | 6mm | -2500K |
| Black/Yellow | 6mm | -2510K |
| Red/White | 8mm | -2520K |
| Black/Yellow | 8mm | -2530K |
| Red/White | 10mm | -2540K |
| Black/Yellow | 10mm | -2550K |



AVON PVC Insulation Tapes

Extremely flexible with a good adhesion. For wire and cable insulation, bundling and reinforcing. Assorted colours for colour-coding cables. Flame retardant. Manufactured to **BS 4J10** (Aero) and **BS 3924**.

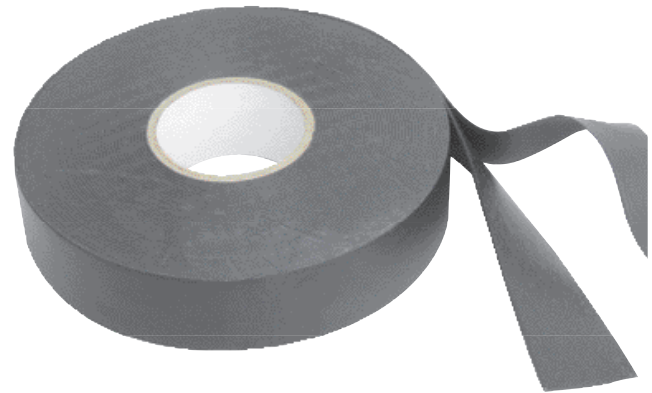
Roll length: 33m.
Box quantities: 19mm = 40, 25mm = 30.
Thickness: 0.13mm (5mil).
Adhesion: 0.47kg/25mm. (16.5oz/1").
Tensile strength: 5.2kg/25mm (11.5lb/1").
Elongation: 150%.
Breakdown voltage: 5.5kV.
Insulation class: 80°C.
***Assorted Colours:** Black, white, yellow, green, blue, red, purple, orange, brown, black.



| Roll Size (W x L) | Colour | Box Qty | Order Code | |
|-------------------|---------------------|---------|---------------|---------------|
| 19mm x 33m | Grey | 40 | -7400K | |
| | Purple | 40 | -7450K | |
| | Orange | 40 | -7500K | |
| | Brown | 40 | -7550K | |
| | Black | 40 | -7600K | |
| | Blue | 40 | -7650K | |
| | Green | 40 | -7700K | |
| | Red | 40 | -7750K | |
| | White | 40 | -7800K | |
| | Yellow | 40 | -7850K | |
| | Green/Yellow | 40 | -7950K | |
| | Assorted* (8 Rolls) | | | -8920K |
| | 25mm x 33m | Black | 30 | -8100K |
| | | Blue | 30 | -8150K |
| | | Green | 30 | -8200K |
| Red | | 30 | -8250K | |
| White | | 30 | -8300K | |
| | Yellow | 30 | -8350K | |

Pipe Repair Tape

Completely water and UV-resistant. Used to joint and repair a wide range of power and distribution cables up to 46kV. For above and below ground.



| Roll Size (W x L) | Colour | Order Code |
|-------------------|--------|---------------|
| 25mm x 10m | Black | -0940K |

Extra Wide PVC Insulation Tape

Extremely flexible with a good adhesion. For wire and cable insulation, bundling and reinforcing. Flame retardant. Manufactured to **BS 4J10** (Aero) and **BS 3924**.



| Roll Size (W x L) | Colour | Order Code |
|-------------------|--------|---------------|
| 50mm x 33m | Black | -8500K |
| 100mm x 33m | Black | -8700K |

Group 957 Head Protection

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Group 958 Hearing Protection

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Group 959 Respiratory Protection

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Group 960 Eye & Face Protection

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Group 961 Hand Protection

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Group 962 Hi-Vis Clothing

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Group 962 Knee & Elbow Pads

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Personal Protection

Product Groups 957 - 963

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Head Protection



Hazards

EN317, EN812
Impact from falling or flying objects,
Risk of head bumping.

Options

A range of helmets and bump caps.



Visit any construction site almost anywhere in the world and safety helmets will be everywhere, providing workers with essential protection from falling objects such as bricks and tools and/or possible structural or equipment head hazards. Safety helmets are also widely used across most industries.

What the law requires

The **Personal Protective Equipment at Work Regulations 1992** require employers to provide head protection for workers and visitors wherever it is needed – free of charge and with appropriate training.

Safety Helmets

Available in a variety of styles for individual comfort, including lightweight and vented helmets for additional comfort. Many helmets can now be fitted with accessories such as face shields and ear muffs for added protection.

- Check your safety helmet regularly for signs of damage.
- Don't fix stickers or write on your safety helmet – it could compromise its performance.
- Keep stored away from direct sunlight. Excessive UV can damage helmets (rear parcel shelves in cars are not a good place).
- As a general guide, industrial safety helmets should be replaced after three years but always check the date stamp (this is usually on the peak) and the manufacturer's instruction as some have longer periods.

Bump caps

Intended to protect against minor bumps to the head, typically from low ceilings or hanging items in the workplace. They should never be used as a substitute for safety helmets since they do not offer adequate protection against falling objects and heavier impacts.

Safety Helmet & Bump Cap materials

ABS safety helmets are made of quality acrylonitrile butadiene styrene, a common thermoplastic material with excellent impact resistance and toughness.

HDPE is a much more cost effective material but does require thicker wall thickness to ensure that a safe helmet can be produced. The material is very durable and has a good degree of flexibility allowing for excellent shock absorption properties.

EN Standards

There are different safety standards dependant on the use of the Helmets and Bump Caps.

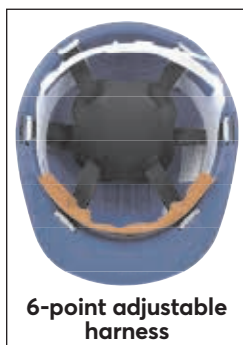
| | |
|-------------------|--|
| EN 97 2012 | Hard hats are manufactured and tested in the UK to BS EN 397 . This European standard code of practice provides guidance for manufactures of hard hats, to ensure minimum materials grades are used in the production of the hard hat, and the requirements of the testing to be undertake to keep users safe in accordance with the minimum requirements specified in BS EN 397 . |
| EN 12492 | Helmets for Mountaineering. Mountaineering helmets are intended to provide protection against sharp / pointed objects, and so are tested for penetration by sharp objects. The test in EN 12492 is essentially the same as that specified in EN 397 , where a 3kg conical striker is dropped onto the helmet from a height of 1 meter, and any contact between the helmet and headform. |
| EN 166 | This is an safety standard for eyewear and some safety helmets have integrated eyewear Anti Scratch / Anti Mist |

| | |
|-----------------|---|
| EN 352-3 | EN 352-1, -2 and -3 are the basic parts of EN 352 standard of the hearing protectors. Testing and safety requirements for ear-muffs are in EN 352-1 and those for earplugs are described in EN 352-2 . Testing methods for ear-muffs attached to industrial safety helmets are covered in EN 352-3 . |
| EN 812 | EN 812:A1 , relates to bump cap of current use. They are used in the industry to protect the head when it hits hard and static objects that can stun or cause lacerations and superficial injury to the wearer. They are primarily intended for indoor use but can also be used outside for some businesses. |
| EN 1731 | This standard relates to the mesh protector that attaches to helmets |
| EN 50365 | Insulating helmets for use on low voltage installations, Protection against electric shocks and prevention of dangerous electric current passing through the head - requirements. Protection against alternating voltage of up to 1000 V (AC) or direct voltage up to 1500 V (DC). |

SITESAFE Safety Helmets

Standard

Made of high-density injected polyethylene, the Sitesafe Standard Safety Helmet is designed to provide optimal impact protection from falling objects such as bricks and roofing tiles, as well as from electrical discharges up to 440V ac. It comes with a fully adjustable six point harness to fit a wide range of head sizes. Conform to: **EN 397: 2012 & EN 50365: 2002.**



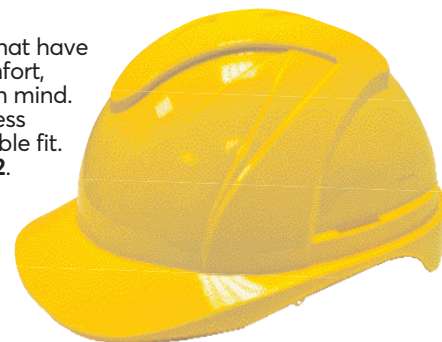
6-point adjustable harness

| Colour | Order Code |
|------------|------------|
| Orange | -2040K |
| Red | -2050K |
| Royal Blue | -2060K |
| White | -2070K |
| Yellow | -2080K |

Vented Safety Helmets

Standard Helmet - ABS

Vented safety helmets that have been designed with comfort, performance and style in mind. 6-point adjustable harness ensures a safe comfortable fit. Conform to: **EN397: 2012.**



6-Point Adjustable Harness



Rear Vented



Full Peak Design

| Colour | Order Code |
|----------------------|------------|
| White | TFF-957 |
| Yellow | -1210K |
| Blue | -1220K |
| Red | -1230K |
| Orange | -1240K |
| Adjustable Chinstrap | -1250K |
| | -1940K |

TUFFSAFE Baseball Bump Caps

Energy from an impact is absorbed and dissipated by partial destruction or damage to the under shell of the cap. It is fashionable. Side and top vents for increased comfort. Washable. Adjustable strap to fit head size 54 to 59cm. Conforms to: **EN 812: 2012.**



| Colour | Order Code |
|------------|------------|
| Navy | TFF-957 |
| Red | -1800K |
| Royal Blue | -1801K |
| Black | -1802K |
| | -1803K |

Helmet Accessories

Ear Defenders

For use with Tuffsafe Vented Safety Helmets. Conform to: **EN 352-3: 2002.**

SNR = 27dB



Order Code
TFF-958
-1250K

SITESAFE Helmet Accessories

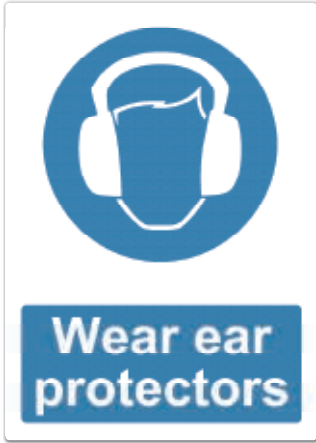
For use with Sitesafe Safety Helmets. 225mm clear polycarbonate visor provides all round visibility whilst protecting against flying particles and liquid splash. Visor carrier supplied separately.



Carrier
SSF-957-7200K

Visor
SSF-960-9420K

Hearing Protection



Hazards

Noise – a combination of sound level and duration of exposure. Very high-level sounds are a hazard even with short duration.

Options

A range of earplugs and earmuffs.



Many employees are exposed to noise levels at work that may be harmful. According to the Health & Safety Executive, some 17,000 people in the UK suffer deafness, ringing in the ears or other ear conditions caused by excessive noise at work - and the worst thing about hearing damage is that it cannot be reversed.

Noise is not a linear scale, an increase of 3dB doubles the noise level. It is not only how loud the noise is, but how long workers are exposed to it that needs to be taken into consideration.

What PPE products are available?

There is a wide range of **earplugs** and **earmuffs** available to suit all requirements and ensure protection, comfort and good practice.

Applicable Standards

- EN352-1 Ear Muffs
- EN352-2 Ear Plugs
- EN352-3 Helmet Mounted Ear Muffs
- EN352-4 Level Dependant Ear Muffs
- EN352-5 Active Noise Reduction Ear Muffs
- EN352-6 Ear Muffs with Electrical Audio Input
- EN352-7 Level Dependant Ear Plugs

Understanding Noise Levels

Exposing your employees to high noise levels without providing them with adequate protection will cause damage to their hearing. Hearing damage is permanent. Noise is not a linear scale - an increase of 3dB doubles the noise level:- 83dB(A) is twice as loud as 80dB(A)



Examples of common noise levels:

| Noise Activity | Typical Noise Level dB(A) |
|-----------------------------------|---------------------------|
| Rocket launching | 180 |
| Jet engine, gunshot | 140 |
| Thunder, impact drill | 130 |
| Jet takeoff (threshold of pain) | 120 |
| Riveter | 115 |
| Chainsaw, car horn | 110 |
| Impact wrench | 102 |
| Fireworks, underground train | 100 |
| Rotary Drill | 95 |
| HGV, lawnmower, arc welder | 90 |
| Alarm clock, hair dryer | 80 |
| Noisy restaurant, business office | 70 |
| Normal conversation | 60 |
| Light traffic, average home | 50 |
| Living room, quiet office | 40 |
| Library, soft whisper | 30 |
| Rustling leaves | 20 |
| Threshold of hearing | 0 |

Lower Exposure Level

Action to take:

1. A range of hearing protectors must be made available to workers exposed to noise. Usage is voluntary.
2. Training provided on safe working, detecting hearing damage, risks of noise exposure and the correct use and fitting of hearing protectors.
3. Audiometric screening should be made available to those at risk of NIHL.

Exposure Levels:
 Daily 8hr 80dBA
 Peak 135dBC

Upper Exposure Level

Action to take:

1. A range of hearing protectors must be made available to workers exposed to noise. Usage must be enforced.
2. Noisy areas must be clearly identified with warning signs.
3. Exposed workers should have audiometric evaluation made available.

Exposure Levels:
 Daily 8hr 85dBA
 Peak 137dBC

Exposure Limit

Action to take:

1. Maximum level allowed that must not be exceeded.
2. Where exposure to noise varies markedly from day to day the weekly exposure level should be measured and used in place of daily noise exposure.

Exposure Levels:
 Daily 8hr 87dBA
 Peak 140dBC

As with all PPE items it is about selecting the correct product for the hazard.

So first you need to identify the hazard.

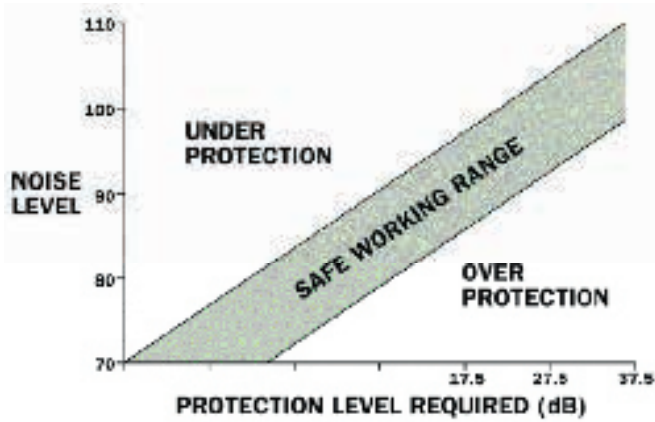
In this case it is the noise level. However it is not just about how noisy it is. It is about how long the workers are exposed to those noise levels.



Noise level exposure limits

It is not only how loud the noise is but how long workers are exposed that needs to be taken into consideration.

| Noise level dB | Max. exposure per 24 hours |
|----------------|----------------------------|
| 140 | NO EXPOSURE |
| 127 | 1 second |
| 124 | 3 seconds |
| 118 | 14 seconds |
| 112 | 56 seconds |
| 109 | 112 seconds |
| 103 | 7.5 minutes |
| 100 | 15 minutes |
| 97 | 30 minutes |
| 91 | 2 hours |
| 88 | 4 hours |
| 85 | 8 hours |

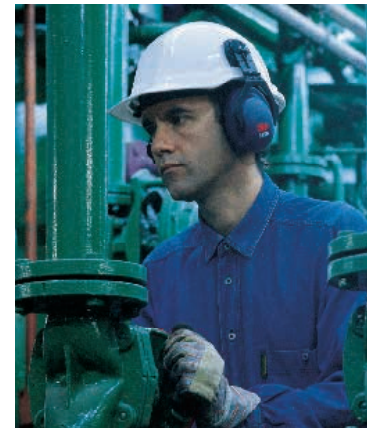


Now you know the risk it is about selecting the correct product to bring the worker into the safe working range.

Under protection WILL result in wearers damaging their hearing.

Over protection could result in wearers being put at risk by not hearing communications, a moving vehicle or even the fire alarm.

The safe working range is between 70 to 75 dB.



TUFFSAFE Disposable Ear Plugs

HEP029

Hexagonal foam plugs. Supplied as pairs, individually packed in polythene pouches. EN352-2: 2002.

PACK OF 200PR

H = 32dB
M = 25dB
L = 20dB

SNR = 29dB



Pack Quantity
200pr

Order Code
TFF-958
-0010K

Ear Plug Dispenser

Durable design. Simple and easy to refill. Clear plastic lid enables at-a-glance assessment of contents. Free standing or wall mountable.

Height: 330mm.
Width: 340mm.
Diameter: 230mm.

EAR PLUGS NOT INCLUDED



Order Code
TFF-958
-1740K

Disposable Ear Plugs

Disposable ear plugs for comfortable hearing without impairing normal communication. Tapered design makes fitting easier and helps form a comfortable fit. SNR Rating 34dB. Conform EN352-2: 2002

PACK OF 200PR

SNR = 34dB



Type Pack Qty Order Code
Corded 200pr TFF-958
-1640K

Detectable Reusable Ear Plugs

Easy to fit and comfortable to wear for effective hearing protection. Ideal for the food manufacturing industry where blue is classified as a non-food colour. Conformance EN352-2: 2002

PACK OF 50PR

SNR = 37dB



Type Pack Qty Order Code
Corded 50 TFF-958
-1720K

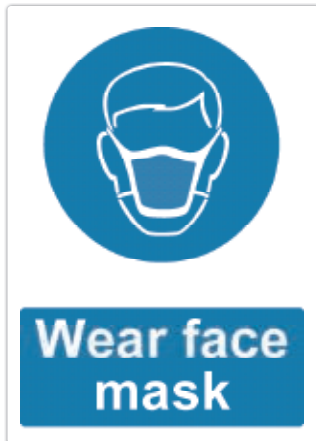
SITESAFE Ear Defenders

With flexible reinforced plastic headbands ABS cups and PVC cushions. Conform with EN352-1: 2002



Type Order Code
General SSF-958
-4040K

Respiratory Protection

**Hazards**

Oxygen-deficient atmospheres, dusts, gases and vapours.

Options

Wide range of products from simple filtering facepieces through to self-contained breathing apparatus.

**What the law requires**

Under the current legislation, employers are responsible for identifying potential hazards in the workplace

- To provide suitable respiratory equipment for employees
- To provide suitable and appropriate training for employees
- To ensure the equipment is correctly maintained and records are kept

FFP1

Low-levels of nontoxic fine dust (up to 4x APF), oil or water based mists typically found during sanding, drilling and cutting.

FFP2

Moderate-levels of fine dust (up to 10x APF), oil or water based mists typically found when mixing plaster, cement, sanding and wood dust.

FFP3

Moderate-levels of fine dust (up to 20x APF), oil or water based mists, typically hazardous pharmaceutical powders, silica, biological agents/fibres, waste.

Assigned Protection Factor (APF)

The level of protection a respirator can be expected to provide if it is functioning properly and the user is wearing it correctly.

APF is scored via a number, allowing users to gauge how much contaminant they are expected to inhale while wearing the respirator.

So, wearing **Respiratory Protective Equipment (RPE)** with an **APF** of 10 will reduce the exposure to the wearer by a factor of 10 in other words the wearer will inhale one-tenth of the amount of contaminant present in the air.

OELs

The occupational exposure limit values are the average concentration of a substance in the air in the workplace, up to which no damage (chronic or acute) is to be expected if employees work there for eight hours a day for five days a week.

Applicable Standards

- EN149:2001** relates to disposable respirators. Additional markings, such as **FFP1**, **FFP2** or **FFP3** indicate the protection level offered - the higher the number, the better the protection.
- EN140** is the European standard that covers the technical specifications for both Half & Quarter masks. A half mask is defined as covering the nose, mouth and chin, and a quarter mask as covering only the nose and mouth.
- EN136** is the standard that covers the technical specifications for Full Face Masks.
- EN405:2002 +A1:2009** valved filtering half masks to protect against gases and particles.

The Hazards

A workplace respiratory is anything that impairs an employee's ability to breath freely and safely. Threats may include:

Dust - Formed when solid matter is broken down into fine airborne particles.

Mists - Tiny liquid droplets formed by condensation or as a result of such processes as spraying.

Metal fume - Fine airborne particles produced from metal that has been vaporised at a high temperature and then condenses e.g. through welding processes.

Vapours - Gases formed when solids or liquids evaporate at room temperature.

Gases - Often undetected, spread freely and quickly through the air.

Training

If a respirator is not worn correctly it will not provide the required protection, so it is vital that you integrate RPE use into normal workplace activities and provide adequate training. It is often best, if possible, to give a choice of several adequate and suitable RPE to wearers so they can select the most comfortable.

All people involved in the selection, use, storage and maintenance (if necessary) of RPE require training.

Face piece fit testing is a way of checking that a tight-fitting face piece (typically disposable and reusable respirators, although this can include half and full face masks, including those that form part of an air-fed or powered respirator) fits the wearer's facial features and forms an adequate seal. Fit testing of all tight fitting respirators is mandatory in the UK.

Ideally Training should cover:

- Why RPE is necessary
- Hazards and their risks and effects
- The type of RPE being provided
- How it works
- Why fit testing is required (if relevant)
- How to wear and check equipment correctly
- Fit checking before use
- Details of required maintenance / record keeping
- How to clean and store
- What to do if there's a problem with any RPE
- Responsibilities of both employer and employees

How to Choose Respiratory Protection

Identify the Hazard

- Particulate Hazards** - Dust, mist, fume, vapour, gas.
- Gas and Vapour Hazards** - Solvent vapours or acidic gasses
- Oxygen Deficient Atmospheres** - Often found in confined spaces where oxygen is consumed by heavier than air vapours

Types of Hazard

Consider the task that is being undertaken

- Process Generated** - Dust from sanding wood, cutting, heating or welding processes generate harmful contaminants into the air in the form of dust and fumes
- Other workplace Hazards** - Such as bottled gasses, solvents or chemicals will come with a Material safety data sheet (MSDS) which should provide information on health hazards, substances contained in the product and the type of RPE required for its Safe use.

Risk Assessment

- What is the exposure limit?

Check MSDS certificates do they provide guidance on the required APF

Does the contaminate have a prescribed OEL (Occupational Exposure Limit. If there is no advice on the required APF in the MSDS you can calculate the required protection level using the OEL and quantity of contaminate in the air

If there is more than one hazard present in the air for example dust and gas. You will need to find out the protection factor required for each and choose the appropriate RPE based on the highest protection factor required

Selecting the Correct Respirator

FFP disposable, half or full-face mask, powered or air-fed - Please see types of respirator for guidance

Appropriate Training

It is essential to train every user in the correct fitting, use, care and maintenance of the respirator

Types of Respirator

Disposable Respirators

See pages 802 - 803

- Protect the wearer from particulate hazards
- Valved or unvalved options - valved respirators reduce the effort to exhale and are cooler to wear which will reduce the misting of eyewear
- Many disposable respirators feature an adjustable nose clip for added user comfort



FFP1 NR D: The dolomite test is an optional test under norms **EN 149:2001 +A1:2009**. Those respirators which pass the dolomite clogging test are proved to provide a more comfortable fit and resist clogging for longer.

SITESAFE Particulate Respirator Mask - Valved

SSDRV104

Conforms to **EN149 2001 FFP1** and **AS/NZS 1716:2003** standards. Provides protection against non-toxic harmful solid and liquid in concentrations up to 4 x NPF or 4 x APF, such as calcium carbonate, china clay, cement, cellulose, sulphur, cotton, flour, carbon, ferrous metals, vegetable oils and soft wood. Recommended applications for textile industry, craftwork, iron and steel industry, mining, woodworking etc. Exhalation valve to reduce hot air build-up. Maintenance-free (disposable).



PACK OF **10**

FFP1 NR NPF = 4 APF = 4

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|---------------|
| SSDRV104 | 10 | 14g | -2785K |

TUFFSAFE Particulate Respirator Mask - Valved

DRV104

Conforms to **EN149:2001 + A1:2009 FFP1 NR D** standards. Collapse-resistant double shell, made to withstand hot and humid conditions. Fringe seal avoids open layers around the edges. Latex-free synthetic rubber head strap and contour design ensure the mask can be worn with glasses/goggles with the close fit helping to reduce fogging. Fitted with an exhalation valve for extra comfort in hot and demanding conditions allowing easy breathing and speaking. Soft close-cell nose foam and adjustable nosepiece for a custom shaped fit, increases wearer's comfort and acceptance over extended periods of use.



PACK OF **10**

FFP1 NR D NPF = 4 APF = 4 VALVED

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|---------------|
| DRV104 | 10 | 14g | -2125K |

Particulate Respirator Mask

SSDRM104

Conforms to **EN149 2001 FFP1** standards. **AS/NZS 1716:2003**. Polypropylene (PP) outer layers provide smooth lining and avoid loose fibres. Fringe seal avoids open layer around the edges, latex-free synthetic rubber head strap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece ensure custom shape and increases wearer's comfort and acceptance. For protection against low-to-average toxicity harmful solid, liquid and smoke.



PACK OF **20**

FFP1 NPF = 4 APF = 4

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|---------------|
| SSDRM104 | 20 | 8g | -2765K |

Particulate Respirator Mask

DRM104

Conforms to **EN149:2001 + A1:2009 FFP1 NR D** standards. Collapse-resistant double shell construction made to withstand hot and humid conditions. Fringe seal avoids open layer around the edges. Latex-free synthetic rubber head strap. Contour design ensures the compatibility of glass/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece ensure a custom shaped fit and increased wearer comfort and acceptance over extended periods of use. For protection against non-toxic harmful solids and liquids.



PACK OF **20**

FFP1 NR D NPF = 4 APF = 4

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|---------------|
| DRM104 | 20 | 8g | -2120K |

FFP2 NR D: The dolomite test is an optional test under norms **EN 149:2001 +A1:2009**. Those respirators which pass the dolomite clogging test are proved to provide a more comfortable fit and resist clogging for longer.



Particulate Respirator Mask

SSDRM212

Conforms to **EN149 2001 FFP2** and **AS/NZS 1716:2003** standards. Polypropylene (PP) outer layers provide smooth lining. Fringe seal avoids open layer around the edges. Latex-free synthetic rubber head strap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece ensure custom shape and increase wearer's comfort.



PACK OF 20

FFP2 NR NPF = 12 APF = 10

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|-----------------------|
| SSDRM212 | 20 | 10g | SSF-959 -2768D |



Particulate Respirator Mask

DRM212

Conforms to **EN149:2001 +A1:2009 FFP2 NR D** standards. Polypropylene (PP) outer layers provide smooth lining. Latex-free synthetic rubber head strap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece ensure custom shape and increase wearer's comfort.



PACK OF 20

FFP2 NR D NPF = 12 APF = 10

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|-----------------------|
| DRM212 | 20 | 10g | TFF-959 -2130K |

Particulate Respirator Mask - Valved

SSDRV212

Conforms to **EN149 2001 FFP2** and **AS/NZS 1716:2003** standards. Polypropylene (PP) outer layer provide smooth lining and avoid loose fibres. Latex-free synthetic rubber head strap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece ensure custom shape and increase wearer's comfort. With exhalation valve for breathing easier and reduce hot air build-up.



PACK OF 10

FFP2 NR NPF = 12 APF = 10 VALVED

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|-----------------------|
| SSDRV212 | 10 | 17g | SSF-959 -2788D |

Particle Respirator Mask - Valved

DRV212

Conforms to **EN149:2001 +A1:2009 FFP2 NR D** standards. Polypropylene (PP) outer layers provide smooth lining and avoid loose fibres. Latex-free synthetic rubber head strap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Soft close-cell nose foam and adjustable nosepiece aid wearer's comfort. With exhalation valve for breathing easier and reduce hot air build-up.



PACK OF 10

FFP2 NR D NPF = 12 APF = 10 VALVED

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|-----------------------|
| DRV212 | 10 | 17g | TFF-959 -2135K |

FFP3 NR D: The dolomite test is an optional test under norms **EN 149:2001 +A1:2009**. Those respirators which pass the dolomite clogging test are proved to provide a more comfortable fit and resist clogging for longer.

Valved Particulate Respirator Mask - Valved

SSDRV350

Conforms to **EN149 2001** and **AS/NZS 1716:2003** standards. Unique design provides very low breathing resistance. Polypropylene (PP) outer layers provide smooth lining and avoid loose fibres. Adjustable headstrap. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Full facial close-cell nose foam and adjustable nosepiece. With exhalation valve.



PACK OF 5

FFP3 NPF = 10 APF = 20 VALVED

| Product Number | Pack Quantity | Weight each | Order Code |
|----------------|---------------|-------------|-----------------------|
| SSDRV350 | 5 | 24g | SSF-959 -2790M |

Particulate Respirator Mask - Valved

DRV 350

Conforms to **EN149:2001 + A1:2009 FP3 NR D** standards. Unique design provides very low breathing resistance. Polypropylene (PP) outer layers provide smooth lining and avoid loose fibres. Adjustable headstrap ensure the best seal with minimum leakage. Contour design ensures the compatibility of glasses/goggles and reduces fogging. Full facial close-cell nose foam and adjustable nosepiece. With exhalation valve.

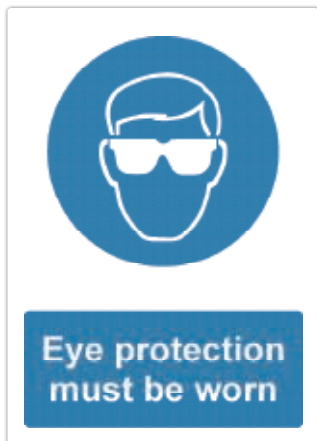


PACK OF 5

FFP3 NR D NPF = 50 APF = 20 VALVED

| Product Number | Pack Quantity | Order Code |
|----------------|---------------|-----------------------|
| DRV350 | 5 | TFF-959 -2140K |

Eye & Face Protection



Hazards

Chemical or metal splash, dust, projectiles, gas and vapour, radiation.

Options

Safety spectacles, goggles, face screens, faceshields, visors.



You can jeopardise your sight in less than the blink of an eye, so always use safety eyewear as protection when hazardous conditions exist. Areas where there are possible chemical splashes, sparks and ultraviolet radiation are all considered high risk.

What the law requires

The wearing of eye and face protection in hazardous areas is a requirement under regulation 4 of the **Personal Protective Equipment at Work Regulations 1992**. This requires employers to provide suitable personal protective equipment to employees exposed to health and safety risks.

Applicable Standards

- EN166** standard covering safety eyewear offering protection from impact hazards caused by fast moving particles.
- EN170** standards applying to ultraviolet filters. Transmittance requirements and recommended use.
- EN172** specification for sunglare filters used in personal eye-protectors for industrial use.

European Standards state safety eyewear must be approved to BS EN166.

Safety eyewear must be marked to identify the protection offered. Safety eyewear must offer eye protection from:

- impact hazards caused by fast moving particles.
- operations such as chipping, grinding and cutting.
- accidental airborne hazards eg. grinding wheel failing or snapping a cutting tool.

The potential impact speed must be assessed before selecting the standard protection. If the hazard could dislodge safety glasses then goggles/face shield should be selected.

When chemical splash is a consideration unvented goggles must be selected to give full eye enclosure protection.

EN 166 Markings

Standard that all Eye & Face Protection products must conform to.

| | |
|---|---|
| 1 | This number specifies the clarity of the lens . We only recommend and sell category 1 which is the best rating. |
| F | This denotes the impact protection : F = Low energy impact (45 m/s) B = Medium energy impact (120m/s) A = High energy impact (190m/s) Standard safety glasses will normally only be able to reach an F rating as the impact energy transfers through the lens onto the face. Some safety glasses with a foam seal can now reach a B rating. Goggles and face shield can should have a B rating. When grinding you will need a product with a B rating. |
| T | Frame withstands impacts at extreme temperatures . |
| K | Lens are coated, making them resistant to surface damage (anti-scratch) . |
| N | Lens is resistant to fogging . This is different to products that claim to be resistance to misting. |
| NB. When grinding we would recommend B (medium impact energy) impact protection. A face shield is best suited when grinding. | |

Quick Reference

Through the eye and face protection range, there are a number of quick reference logos to help you choose which level of safety is right for you. Below are the logos and their meanings.

- Adjustable Frame** Adjustable frames for a superior fit.
- Wrap Around** Wraparound single lens provides unobstructed field of vision.
- Flame Resistant** Resistant to flames and heat - not flame-proof.
- Anti-dust** Designed to minimise dust contamination.

- Polycarbonate Lens** Polycarbonate lenses are more impact-resistant and lighter than most types of lenses.
- Acetate Lens** Has a lower impact energy rating and is more flexible compared to polycarbonate.
- Anti-fog** This provides increased safety, while retaining excellent visibility.
- UV Protection** Gives a level of protection against harmful UV rays.

- Brow Guard** Extended brow guard moulded into the top of the lens gives a near perfect orbital seal against debris.
- Side Shields** For greater protection from debris towards the side of the eyes.
- Cheek Guard** Glasses which have a larger lens to cover the cheek bone.
- Chemical Resistant** Resistant to chemical splashes - not chemical proof.
- Scratch Resistant** Hard coated for excellent durability and scratch resistance resulting in unobstructed viewing.

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Standard Safety Glasses

Safety glasses are designed to provide protection and clarity of vision. The majority of the products are wrap around style which minimise the gaps between the glasses and the wearers face reducing the risk of an accident.



See pages 806 - 807

Accessories

Product to protect your safety glasses and prolong their life.



See page 807

Goggles

Goggles can provide additional protection levels than safety glasses. Higher impact levels at B rating. They also provide protection against dusts and liquid splashes.



See page 808

Welding Helmets

Provides protection against wide range of bright light produced when welding. Wide range from stand alone helmets with fixed single lens to products that react to the Arc being struck and products that work with PAPR equipment to provide eye and respiratory.



See page 809



Safety Glasses

Clear wrap round polycarbonate lens. Good fit to face offering excellent coverage. Thin sports style arms



| Type | Colour | Order Code |
|-------|-------------|---------------|
| Clear | Black/clear | -1560K |

Safety Glasses

Clear wrap round polycarbonate lens. Good fit to face offering excellent coverage.



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|---------------|
| Clear | Clear | -1540K |

Safety Glasses

Clear wrap round polycarbonate lens. Good fit to face offering excellent coverage. Thin sports style black arms
EN166 1F



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|---------------|
| Clear | Clear | -1580K |

Over Spectacles

Clear polycarbonate over spectacles with built in side shield and brow guard for added protection. Can be worn over most standard prescription glasses. Ideal as a visitor's safety glasses.
EN166 1F



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|---------------|
| Clear | Clear | -1520K |



Safety Glasses

Clear wrap round polycarbonate lens. Good fit to face offering excellent coverage. 3 different lens types. Clear for normal working, Smoke for when working outside, I/O (Indoor/Outdoor) ideal for forklift truck drivers who move frequently from indoors to outdoors.
EN166 1TT



-1600K



-1620K



-1640K

| Lens Type | Frame Colour | Order Code |
|-----------|--------------|---------------|
| Clear | Clear | -1600K |
| Smoke | Black | -1620K |
| I/O | Clear | -1640K |



Safety Spectacles

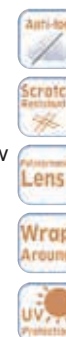
Oberon 5801A-AF Clear

Featuring a one-piece clear polycarbonate lens with built-in side protection for added safety, these spectacles provide protection from low energy impact and UV radiation below 380nm. The incorporation of rubber end tips and nose bridge into the ultra lightweight design improves user comfort and the lens is scratch resistant and anti-mist treated with Class 1 optical quality for distortion-free continuous use.

Lens type: blue/black.
Frame colour: blue/black.



| Lens Type | Frame Colour | Order Code |
|------------|--------------|---------------|
| Blue/Black | Blue/Black | -7200K |



Safety Glasses

TUFFSAFE Safety Glasses

Clear polycarbonate lens with adjustable arms for a more comfortable fit.
EN166 1F



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|-------------------|
| Clear | Black | TFF-960 -1560K |

Safety Glasses

Clear wrap round polycarbonate lens with ratcheted arms for greater adjustment and fit. Clear for normal working, I/O (Indoor/Outdoor) idea for forklift truck drivers who move frequently from indoors to outdoors.
EN166 1FT



-1960K



-1980K

| Lens Type | Frame Colour | Order Code |
|-----------|--------------|-------------------|
| Clear | Black/Blue | TFF-960 -1960K |
| I/O | Black/Blue | -1980K |

Safety Glasses

Clear wrap round polycarbonate lens with adjustable arms for a more comfortable fit. Clear for normal working, smoke f...
EN166 1



1580K



-1600K

| Lens Type | Frame Colour | Order Code |
|-----------|--------------|-------------------|
| Clear | Black | TFF-960 -1580K |
| Smoke | Black | -1600K |



Safety Glasses

Clear wrap round polycarbonate lens. Soft side arms and temples for improved grip and comfort.
EN166 1F



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|-------------------|
| Clear | Black | TFF-960 -1940K |



Safety Glasses

Clear wrap round polycarbonate lens. Solid side arms providing robustness and comfort. Clear for normal working, Blue mirror for when working outside, I/O (Indoor/Outdoor) idea for forklift truck drivers who move frequently from indoors

EN166 1FT



-1880K



-1900K



-1920K

| Lens Type | Frame Colour | Order Code |
|-------------|--------------|-------------------|
| Clear | Black/Blue | TFF-960 -1880K |
| I/O | Black/Blue | -1900K |
| Blue Mirror | Black/Blue | -1920K |



Safety Glasses

Clear wrap round polycarbonate lens with adjustable arms for a more comfortable fit. Clear brow guard for improved vision when l

EN166 1F



| Lens Type | Frame Colour | Order Code |
|-----------|--------------|-------------------|
| Clear | Black | TFF-960 -1660K |



KENNEDY PERSONAL PROTECTION

Soft Spectacle Case

With spring opening.

Order Code
KEN-960
-9560K



Spectacle Neck Cord

With adjustable side buckle.

Order Code
KEN-960
-9620K





Safety Goggles

Have a wide field of vision, built-in brow and cheek protection and a soft PVC frame. Provide UV protection. Fitted with wide allergenic elastic headband and a one-piece replaceable scratch resistant, anti-mist clear lenses.

Tiger

Medium energy impact protection. Smoke coloured frame with a polycarbonate lens. The lens is resistant to splashes of molten metals and penetration of hot solids. The frame has an indirect ventilation system and is resistant to liquids.

EN166 B
EN170



KEN-960-8140K



Safety Goggles

Condor

Medium energy impact protection. Manufactured from flame resistant material. Fitted with a flexible nose bridge and large peripheral viewing area. 2mm anti-mist, scratch resistant clear polycarbonate lens. Can be fitted over most prescription glasses.

EN166 F
EN170



| Lens Type | Frame Colour | Order Code |
|------------------------------|--------------|--|
| Scratch Resistant Spare Lens | Red | KEN-960 -8130K -8120K |



Safety Goggles

Scorpion - Medium energy impact protection. Clear frame with polycarbonate lens. Resistant to splashes of molten metals and penetration of hot solids.

Lion - Low energy impact protection. Clear frame with acetate lens.

EN166
EN170



| Type | Lens (Scratch resistant) | Frame Colour | Order Code |
|----------|--------------------------|--------------|---------------------------------|
| Scorpion | Polycarbonate | Clear | KEN-960 -8070K |
| Lion | Acetate | Clear | -8080K |

Safety Goggles

Cobra

Low energy impact protection. UV protection against electrical arc discharges. Ultra light adjustable nylon blue frame. One-piece, scratch resistant, anti-mist clear polycarbonate lens.

EN166
EN170



KEN-960-8060K



Chemical Splash Resistant, Anti-Dust Safety Goggles

Anti-'chemical-splash' and impact resistant. Indirect ventilation.

EN166



Optical Class 1
Mechanical Strength B

SSF-960-0520K

Safety Goggles

Anti-dust and impact resistant. Direct ventilation.

EN166



Optical Class 1
Mechanical Strength B

SSF-960-0500K



KENNEDY Large View Automatic Welding & Grinding Helmets

KWH100

Large view (98 x 55mm) impact resistant welding helmets with dedicated grinding mode. Suitable for all kinds of welding types, including TIG low amperage. Made of durable, lightweight corrosion resistant and flame retardant material. Auto darkening lenses automatically change from light to dark shade when arc is struck. External sensitivity control provides clear vision both prior to and during welding, whilst ultra high performance filters protect against UV and IR. Special turnover headband mechanism offers greater comfort and reduces fatigue.

Viewing Field: 98 x 55mm (3.86" x 2.17")

UV/IR Protection: Up to Shade **DIN16**

Light State: DIN4

Variable Shade: From **DIN9** to **DIN13**

Reaction Time: 0.00005 sec (1/20,000 s)

Delay Time: Long - Middle - Short (variable from 0.3s - 0.9s)

Sensors: Four infrared detectors

Power Supply: Solar cells + CR2450 lithium battery (supplied PAN-904-2550K)

Power On/Off: Fully automatic

Operating Temperature: -5°C to +55°C (23°F to 131°F)

Storing Temperature: -20°C to +70°C (-4°F to 158°F)

Helmet Material: High impact resistant Polyamide (Nylon)

The product is in full conformity with related **DIN EN 379**, **DIN EN 175 B** and **ANSI Z87.1** Safety Standards.



These helmets meet impact resistance specification **DIN EN 175 B** for grinding

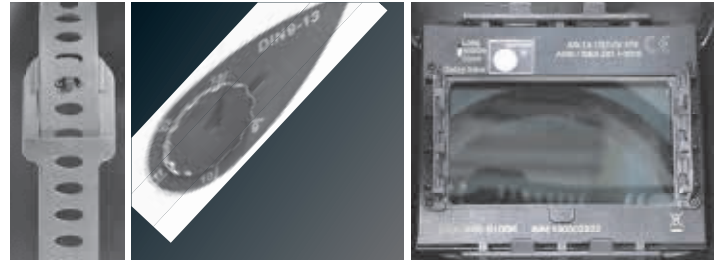


| Colour | Order Code | |
|------------|----------------|------|
| Black | KEN-885 | |
| Union Jack | -5100K | £... |
| | -5120K | £... |

Spares to suit KWH100 Helmets

Lens covers protect the LCD cartridge unit from weld spatter.

| Type | Pack Qty | Order Code | |
|---------------------|----------|----------------|------|
| | | KEN-885 | |
| Inner Lens Cover | 10 | -5160K | £... |
| Outer Lens Cover | 10 | -5165K | £... |
| Adjustable Headband | 1 | -5180K | £... |
| Sweatband | 1 | -5190K | £... |



Welder's Helmets

The entry level to the Kennedy helmet range, both lift up over brow strap when not in use and accept plain and tinted lenses which are available separately.

Lens size: 4 1/4" x 3 1/4"

Weight: 434g

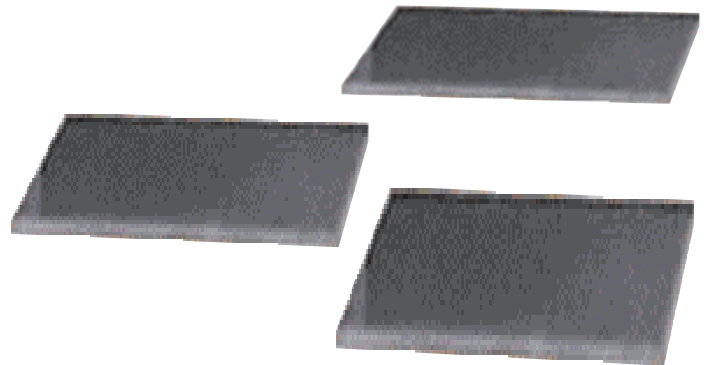


| Visor Type | Order Code | |
|------------|----------------|------|
| | KEN-885 | |
| Flip-up | -7150K | £... |
| Fixed | -7160K | £... |

Lenses to Suit Helmets & Shields

To protect the user from UV rays and weld spatter.

*Standard UK size.



| Lens Size | Type | Colour/ Shade | Order Code |
|-----------------|-------------------------|---------------|---------------|
| 4 1/4" x 3 1/4" | Green Shaded | Sh. 8 | -7412K |
| | | Sh. 9 | -7413K |
| | | Sh. 11 | -7415K |
| | | Sh. 12 | -7416K |
| 4 1/4" x 2" | Green Shaded | Sh. 9 | -7399K |
| | | Sh. 10 | -7402K |
| | | Sh. 11 | -7401K |
| 4 1/4" x 2" | CR39 Antisplatter Glass | Clear | -7408K |
| | | Clear | -7409K |
| 110 x 60mm | Polycarbonate | Clear | -7426K |
| 110 x 90mm | Antisplatter | Clear | -7448K |

Hand Protection



Hazards

Abrasion, temperature extremes, cuts and punctures, impact, chemicals, electric shock, radiation, vibration, biological agents and prolonged immersion in water.

Options

Gloves in a range of styles, lengths, materials and coatings to provide specific kinds of protection.



What the law requires

Under regulation 4 of the **Personal Protective Equipment at Work Regulations 1992**, it is the employer's responsibility to identify potential hazards in the workplace and if these cannot be rectified by any other means, then personal protective equipment must be provided free of charge and with appropriate training.

Food Symbol



Products that carry the food contact symbol are suitable for use with all food categories (Dry foods, aqueous foods, acidic foods, alcoholic foods and fatty foods). This has been established through conducting tests according to the draft European Standards for food contact migration **DD ENV 1186 series**.

Glove Categories



Simple Design - Category 1

Gloves with this designation offer protection against light cuts, contusions, abrasions and mild detergents. Suitable for areas of 'minimal risk' where the effects on hands without gloves would be easily reversible or superficial. These products are unmarked and self-certified.



Intermediate Design - Category 2

Gloves with this designation offer protection against heavier cuts, contusions, abrasions, tears and punctures. Suitable for areas of specific risk: abrasion, blade cuts, tear and puncture. The performance of the glove against these risks is listed below the symbol as shown below.



Complex Design - Category 3

For areas/applications that can seriously or irreversibly harm the health. Such products, in addition to the CE type test, will also have to be either produced under an approved quality system OR be typed tested on an annual basis.

EN388 IS CHANGING from EN388:2003 to EN388:2016

The CUT resistance test is the biggest change. Gloves can continue to be sold under both versions of the standard until 2023. After 2023 only gloves to EN388:2016 will be able to be legally sold.

EN388:2003 - Coupe test results

| Level | Blade cut resistance (Index) | Cromwell classification |
|-------|------------------------------|-------------------------|
| 1 | >1.2 | General purpose glove |
| 2 | >2.5 | |
| 3 | >5.0 | Low to medium cut risk |
| 4 | >10.0 | |
| 5 | >20.0 | High cut risk |

EN388:2016 - ISO test results

| Level | Straight blade cut resistance (N) | Cromwell classification |
|-------|-----------------------------------|-------------------------|
| A | 2 | General purpose glove |
| B | 5 | Low to medium cut risk |
| C | 10 | |
| D | 15 | High cut risk |
| E | 22 | |
| F | 30 | Very high cut risk |

Please note: As the test is different and the construction of the gloves could be different, gloves previously classified as a Cut 3 glove could have different levels on the new test and this could be a higher classification than a Cut 4 glove, or could be lower than a Cut 2 glove.

Glove Sizing
Place your right hand as shown, with your index finger against the black line. The measurement that follows the right side of your hand is your approximate glove size. **This is a general guide only.**

Using a Tape Measure and the Sizing Guide
Wrap a tape measure around your hand at the widest point (usually the knuckles) and make a loose fist. Note that measurement, round it to the nearest inch and refer to the chart below to find your approximate glove size.

| | | | | | | |
|-----------------------|---|---|---|----|-----|------|
| Glove Size XS | S | M | L | XL | XXL | XXXL |
| Sizing Gauge 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Glove Selection

Hazards - Abrasion, temperature extremes, cuts and punctures, impact, chemicals, electric shock, radiation, vibration, biological agents and prolonged immersion in liquid.

Options - Gloves in a range of styles, lengths, materials and coatings to provide specific kinds of protection.

General Purpose

General protection against various hazards including tear, puncture and abrasion.



See pages 816 - 818

Cut Resistant

Protects wearers from cut injuries from sharp objects such as knives or burrs on metal.



See pages 812 - 813

Disposable Gloves

Nitrile
Range of gloves offering protection from small amounts of oil based chemicals.

Vinyl
Low allergens and low cost.

Latex
Provides wearers with comfort while remaining dexterous.



See page 819

Nitrile Coated

General purpose gloves ideal for handling oily components with medium dexterity.



See page 814

Thermal Protection

Suitable for extreme weather and outdoor applications such as rail, transport and automotive.



See page 820

PU & Latex Coated

General purpose gloves with great dexterity. Ideal for handling small dry or slightly damp components.



See page 815

Welding

Protects wearers hands from the hazards of welding and extreme heat.



See page 821

Cut Level E Gloves

TUFFSAFE PU Palm Coated Gloves, Cut E, Grey

- The PU palm coating provides excellent dexterity and grip when handling dry components
- Additional thumb crotch support provides extra protection in high wear areas



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2237A |
| 7 | -2237C |
| 8 | -2237E |
| 9 | -2237G |
| 10 | -2237J |
| 11 | -2237L |

Nitrile Coated Gloves, Cut E, Grey/Black

- The sandy nitrile double palm coating provides excellent grip when handling oily or greasy components
- Additional thumb crotch support provides extra protection in high wear areas



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -2239C |
| 8 | -2239E |
| 9 | -2239G |
| 10 | -2239J |
| 11 | -2239L |

Cut Level D Gloves

Cut D PU Palm Coated Gloves

- The PU palm coating provides excellent dexterity and grip when handling dry components
- Additional thumb crotch support provides extra protection in high wear areas



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2230A |
| 7 | -2230C |
| 8 | -2230E |
| 9 | -2230G |
| 10 | -2230J |
| 11 | -2230L |

Nitrile Palm Coated Gloves, Cut D, Black/Grey

- The nitrile palm coating provides excellent grip when handling oily or greasy components
- Additional thumb crotch support provides extra protection in high wear areas



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -2232C |
| 8 | -2232E |
| 9 | -2232G |
| 10 | -2232J |
| 11 | -2232L |

PU Coated Glove

- Cut resistant 13 gauge HPPE and glass fibre liner
- Designed for handling dry components that have sharp edges or burrs



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -4871B |
| 8 | -4872C |
| 9 | -4873D |
| 10 | -4874E |

EN388

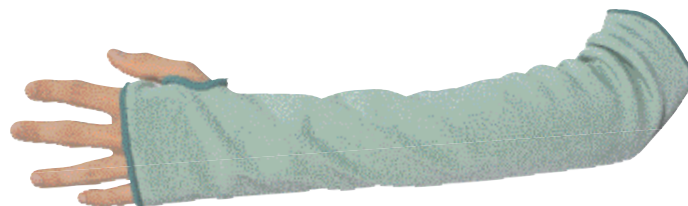


4.5.4.3 D



Sleeve

- Polyamide blend of fibres producing protection with comfort



EN388



4.5.4.X D

EN407



X.1.X.X.X.X

TFF-961-2551F

Cut Level C Gloves

TUFFSAFE Nitrile Cut Resistant Gloves

B-5012

A cut level C glove with excellent grip when handling oily or greasy components.

- Black
- Coating material: Nitrile
- Coating coverage: Palm side
- Cut resistant material: HPPE
- Cuff type: Elasticated
- Additional thumb crotch protection
- EN388:2016 3.X.4.2 C



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2217A |
| 7 | -2217C |
| 8 | -2217E |
| 9 | -2217G |
| 10 | -2217J |
| 11 | -2217L |



HPPE Cut Resistant Gloves

T-2000

A 13 gauge cut level C glove with excellent dexterity and dry grip.

- Grey
- Coating material: Polyethylene (PU)
- Coating coverage: Palm side
- Cut resistant material: HPPE/Fiberglass
- Cuff type: Elasticated
- EN420:2003 + A1:2009
- EN388:2016 3.X.4.2 C



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2219A |
| 7 | -2219C |
| 8 | -2219E |
| 9 | -2219G |
| 10 | -2219J |
| 11 | -2219L |



Cut Level B Gloves

Nitrile Cut Resistant Gloves

T-5002

A 13 gauge cut level B glove that delivers excellent grip when handling oily or greasy components.

- Black
- Coating material: Nitrile
- Coating coverage: Palm side
- Cut resistant material: HPPE/Fiberglass
- Cuff type: Elasticated
- Additional thumb crotch protection
- EN420:2003 + A1:2009
- EN388:2016 4.X.4.3 B



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2210A |
| 7 | -2210C |
| 8 | -2210E |
| 9 | -2210G |
| 10 | -2210J |
| 11 | -2210L |



Cut Resistant Gloves

N10658E

A 13 gauge cut level B glove with excellent dexterity and dry grip.

- Grey
- Coating material: Polyurethane (PU)
- Coating coverage: Palm side
- Cut resistant material: HPPE/Fiberglass
- Cuff type: Elasticated
- EN420:2003 + A1:2009
- EN388:2016 4.X.4.1 B



| Size | Order Code TFF-961 |
|------|-----------------------|
| 6 | -2212A |
| 7 | -2212C |
| 8 | -2212E |
| 9 | -2212G |
| 10 | -2212J |
| 11 | -2212L |



Nitrile Coated Gloves

- 13 gauge seamless HPPE liner with a nitrile foam palm coating
- Designed for use when handling oily, greasy components with a cut risk



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -4830B |
| 8 | -4831C |
| 9 | -4832D |
| 10 | -4833E |



PU Coated Gloves

Orange PU

- 13 gauge seamless HPPE liner
- Designed for handling dry components that could produce a cut risk



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -4861B |
| 8 | -4862C |
| 9 | -4863D |
| 10 | -4864E |



Nitrile Coated Gloves

Personal Protection



Palm Coated Gloves

- 13 gauge seamless nylon comfortable breathable liner with a Nitrile foam palm coating
- Specifically designed to aid grip and protect the hands when handling oily, greasy components



EN388



4.1.2.1

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 7 | -4820B |
| 8 | -4821C |
| 9 | -4822D |
| 10 | -4823E |

Palm Coated Gloves

- Designated as intermediate design



EN388



3.1.2.1

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 6 | -6401A |
| 7 | -6402B |
| 8 | -6403C |
| 9 | -6404D |
| 10 | -6405E |

Fully Coated Gloves

- Excellent resistance to abrasion, cuts and snags, punctures, grease and oil
- Knitted wrist
- Tough general-purpose gloves



EN 388



4.1.1.1

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 9 | -2760K |
| 10 | -2780K |

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Fully Coated Gloves

- With extra wrist protection

Size: 10



EN388



4.1.1.1

TFF-961-2800K

Fully Coated Gloves

- A lightweight, fully coated for all-round protection
- Extra grip



EN388



4.1.1.1

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 8 | -3740K |
| 9 | -3760K |
| 10 | -3780K |

3/4 Coated Gloves

- Open back knitted wrist
- Excellent resistance to abrasion, cuts and snags, punctures, grease and oil
- To keep hands cooler in warm conditions

Size: 10



CE



4.1.1.1

TFF-961-2770K

Latex & PU Palm Coated Gloves

Personal Protection

Latex Coated Gloves

TUFFSAFE Palm Coated Gloves

- For use in cold store, cold room, baggage handling, construction and waste disposal



| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 8 | -6435L |
| 9 | -6436M |
| 10 | -6437N |

SITESAFE Palm Coated Gloves

- Nylon liner with latex palm coating
- Idea for handling rough items in dry or damp conditions



| Size | Order Code |
|------|----------------|
| | SSF-961 |
| 8 | -5991B |
| 9 | -5992C |
| 10 | -5993D |

PU Palm Coated Gloves

TUFFSAFE Palm Coated Gloves

- Designated as intermediate design
- Nylon lined



| Size | Order Code TFF-961 | | |
|------|---------------------------|--------|--------|
| | White | Grey | Black |
| 6 | -6407J | -6415R | -6425A |
| 7 | -6408K | -6416S | -6426B |
| 8 | -6409L | -6417T | -6427C |
| 9 | -6410M | -6418V | -6428D |
| 10 | -6411N | -6419W | -6429E |
| 11 | - | -6420X | - |

TUFFSAFE Palm Coated Gloves

- Seamless nylon flexible liner with PU palm coating
- Ideal for handling dry components



| Size | Order Code |
|------|----------------|
| | TFF-961 |
| 7 | -4850B |
| 8 | -4851C |
| 9 | -4852D |
| 10 | -4853E |

SITESAFE Palm Coated Gloves

- Nylon seamless liner with PU coating
- Great for handling dry objects
- Excellent dexterity



| Size | Order Code |
|------|----------------|
| | SSF-961 |
| 6 | -6330L |
| 7 | -6331M |
| 8 | -6332N |
| 9 | -6333P |
| 10 | -6334Q |

SITESAFE Palm Coated Gloves

- Nylon comfortable flexible liner
- for handling oily components that do not offer a cut risk
- EN388 4132



| Size | Order Code |
|------|----------------|
| | SSF-961 |
| 6 | -6300A |
| 7 | -6301B |
| 8 | -6302C |
| 9 | -6303D |
| 10 | -6304E |

Offer

General Purpose Gloves

Personal Protection



General Handling Gloves

B/104

- For general and heavy handling.
- Grey/White
- Coating material: Chrome leather
- Coating coverage: Palm
- Lining material: Cotton
- Cuff type: Knit wrist
- CAT I

Size: 10.



TFF-961-1140K

Vinyl Impregnated Gloves

- Abrasion, oil, grease and water resistant
- Economical alternative to light duty leather work gloves

Size: 10.



TFF-961-1990K

Chrome Leather Rigger Gloves

- Tough, hard wearing gloves
- Store in dry conditions away from direct heat and sunlight

*With knitted wrist.



| Size | Order Code |
|------|------------|
| 8 | -6520K |
| 10 | -6510K |
| 10* | -6500K |

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Rigger Gloves

With elasticated backs and extra protection against low impact.

- Yellow
- Coating material: Cowhide leather
- Coating coverage: Palm
- Lining material: Nylon/Cotton fleece
- Cuff type: Slip-on
- 2" safety cuffs with arterial protection
- CAT I

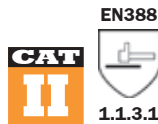
Size: 10.



TFF-961-1290K

PVC Gloves

- Tough, hard wearing gloves.
- Store in dry conditions away from direct heat and sunlight



TFF-961-1245K

Leather Rigger Gloves

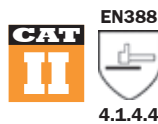
- High quality pig grain leather on palm, thumb, forefinger, fingertips and knuckle with elasticated cotton drill backing
- 2" safety cuff



TFF-961-6570K

Leather Rigger Gloves

- Selected split leather on palms, knuckles, thumb forefinger, fingertips and knuckles
- Cotton drill back
- 2" safety cuff



TFF-961-6580K

TUFFSAFE Leather Gloves

- Two-piece all leather glove
- Fleece lined
- Elasticated cuff with hook and loop adjustment



TFF-961-6590K

TUFFSAFE Leather Gloves

- Provides the highest degree of comfort, flexibility, and abrasion resistance
- With a cotton stockinette back and hook-n-loop fastening to help ensure a good fit



| Size | Order Code TFF-961 |
|------|-----------------------|
| 7 | -4800A |
| 8 | -4801B |
| 9 | -4802C |
| 10 | -4803D |

Cotton Drill Gloves

Standard

- Knitted wrists
- For lightweight and medium handling

Size: 9.



| Colour | Material Weight | Order Code TFF-961 |
|---------|-----------------|-----------------------|
| Natural | 6oz | -1100K |
| | 7oz | -1110K |
| | 8oz | -1120K |

Leather Gloves

- Elasticated back
- Lined or unlined



| Size | Order Code TFF-961 |
|--------------|-----------------------|
| 10 - Unlined | -1355K |
| 10 - Lined | -1358K |

Cotton Gloves

- Knitted wrists and fleece-lined
- Multi-purpose gloves for lightweight handling

Size: 9.



TFF-961-1045K

Leather Gauntlets

- Selected split leather one-piece backs
- Fully lined, two-piece lining, fleece hand and cotton cuff

Size: 11.



| Colour | Order Code TFF-961 |
|--------|-----------------------|
| Green | -1600K |
| Red | -1620K |

Chrome Leather Gloves

- With 2" open cuffs, easily removed
- For general handling
- Double palms for heavier use

Size: 10



TFF-961-1200K

SITESAFE Cotton and Chrome Leather Gloves

- Chrome leather palms with a cotton back and knitted wrists
- For general handling



| Size | Order Code SSF-961 |
|------|-----------------------|
| 8 | -2510K |
| 10 | -2500K |

SITESAFE

Chrome Leather Gloves

- Chrome leather palms with additional protection on finger tips and knuckles
- Cotton back
- 2" safety cuff



| Size | Order Code |
|------|------------|
| 8 | -2530K |
| 10 | -2520K |



PVC Dots Gloves

- Rigger glove with additional PVC dots for improved grip
- 2" safety cuff



SSF-961-2550K

Leather Gloves

- Furniture hide leather rigger glove with 2" safety cuff



SSF-961-2560K

Leather Gloves

- Heavy duty rigger glove with 2 layers of leather on the high wearing areas, palm, thumb and index finger
- Additional single protection on finger tips and knuckles
- Cotton back
- 2" safety cuff



SSF-961-2540K

Low Risk Stockinette Gloves

- Lightweight and breathable glove liner
- 52% poly/48% cotton



PACK OF 12



| Size | Order Code |
|------|------------|
| 8 | -3030K |
| 10 | -3020K |

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Low Risk General Handling Gloves

PACK OF 12

- Interlocked poly/cotton (52/48%) white gloves
- Can be used for handling intricate small objects or as a lightweight and breathable line
- Fouchette style fingers and inset thumb provide increased comfort and enhanced fit



| Size | Order Code |
|------|------------|
| 8 | -3010K |
| 10 | -3000K |



Low Risk Stockinette Gloves

PACK OF 12

- Cotton drill (80% cotton, 20% poly) 6oz gloves with knitted wrist



| Size | Order Code |
|------|------------|
| 8 | -3050K |
| 10 | -3040K |

Low Risk Vinyl Dot Gloves

PACK OF 12

- Cotton backed gloves covered with vinyl dots for extra grip
- Knitted wrist



| Size | Order Code |
|------|------------|
| 8 | -3070K |
| 10 | -3060K |

Leather Gauntlets

- Split leather one-piece backs
- Fully lined, two-piece lining, fleece hand and cotton cuff

Size: 11.



| Colour | Order Code |
|--------|------------|
| Green | -1610K |
| Red | -1620K |

Disposable Gloves

TUFFSAFE Nitrile Disposable Gloves

- Premium quality non sterile examination gloves
- Suitable for medical use and for the food industry

Surface finish:

Textured finger tips.

Length: 24cm.

Thickness: 4.5mm.



| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -2322K |
| M | -2324K |
| L | -2326K |
| XL | -2328K |

Nitrile Gloves

- Non sterile examination gloves
- Suitable for medical use and for the food industry

Surface finish: Textured finger tips.

Length: 24cm.

Thickness: 2.2mm.



| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -2302K |
| M | -2304K |
| L | -2306K |
| XL | -2308K |

Vinyl Gloves

- Designed for general use in minimal risk conditions.
- They can help to reduce cross contamination in the work environment
- Seamless and powdered for easy removal.



Colour: blue.

Colour: clear.

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -7034E |
| M | -7035F |
| L | -7036G |
| XL | -7037H |

Offer

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -7044E |
| XL | -7047H |

PACK OF 100

Nitrile Gloves

- Gloves with excellent diamond grip finish, increased tensile strength, optimum protection in tough environments and superior tactile sensitivity.
- Suitable for medical use and for the food industry



| Size | Order Code |
|------|----------------|
| | TFF-961 |
| M | -2344K |
| L | -2346K |
| XL | -2348K |
| 2XL | -2350K |

PACK OF 100

Latex Gloves

- Finger hugging latex provides maximum dexterity, sensitivity and comfort
- Made from 100% natural rubber latex textured for extra grip
- Ambidextrous with rolled cuff for added strength

PACK OF 100



Powdered

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -3120A |
| M | -3121B |
| L | -3122C |
| XL | -3123D |

Powder-free

| Size | Order Code |
|------|----------------|
| | TFF-961 |
| S | -3110A |
| M | -3111B |
| L | -3112C |
| XL | -3113D |



PACK OF 100

SITESAFE Vinyl Gloves

- For general use in minimal risk conditions
- reduce cross contamination in the work environment
- Seamless, powdered and latex free

PACK OF 200



| Size | Order Code |
|------|----------------|
| | SSF-961 |
| S | -7034E |



TUFFSAFE Leather Gloves

Arctic Riggers

- Selected split leather palms, knuckles and finger tips
- Cotton drill backs & 2" reinforced safety cuffs with arterial protection
- Protection against low impact
- Thinsulate® lined with a knitted wrist for extra protection against cold

Size: 9.



TFF-961-1900K

Towelling Gloves

- Thick close loop pile gloves which cushion and protect
- Gives good insulation against heat or cold

Size: 10.



TFF-961-1080K

820

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Kevlar® Sleeves

- Provides level 3 protection against cuts
- Good protection against heat



EN388

EN407



1.3.4.X X.1.X.X.X.X

| Length | Type | Order Code TFF-961 |
|-----------|--------------------------|-----------------------|
| 255mm/10" | With Thumb Hole | -4101A |
| 355mm/14" | | -4102B |
| 455mm/18" | | -4103C |
| 600mm/24" | | -4104E |
| 255mm/10" | Without Thumb Hole | -4106G |
| 355mm/14" | | -4107H |
| 455mm/18" | | -4108J |
| 600mm/24" | | -4109K |

Towelling Gauntlets

- Thick close terry-towelling loop pile gloves which cushion and protect, also giving good insulation against heat or cold

Size: 10.



TFF-961-1095K

EN12477 - Welding Gloves

EN12477:2003 defines relevant requirements and test methods for protective gloves for use in manual metal welding and allied processes. Under this standard, all gloves to be used for welding must be independently tested and certified by an official notified body, and must meet certain performance levels.

Type B gloves are recommended where high dexterity is required, e.g. TIG welding. **Type A** gloves are recommended for all other welding processes. The type and all appropriate markings (Pictograms) will be marked on the product, its packaging and the user instructions.

EN12477:2003 Minimum Performance Levels for Welding Gloves

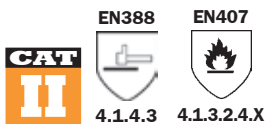
| | TYPE A | TYPE B |
|---|----------------------|----------------------|
| MECHANICAL RISKS (as per EN388:2003) | | |
| Abrasion Resistance | Level 2 | Level 1 |
| Blade Cut Resistance | Level 1 | Level 1 |
| Tear Resistance | Level 2 | Level 1 |
| Puncture Resistance | Level 2 | Level 1 |
| THERMAL HAZARDS (as per EN407:2004) | | |
| Burning Behaviour Resistance | Level 3 | Level 2 |
| Contact Heat Resistance | Level 1 | Level 1 |
| Convective Heat Resistance | Level 2 | Level X |
| Radiant Heat Resistance | Level X | Level X |
| Small Molten Metal Splash Resistance | Level 3 | Level 2 |
| Large Molten Metal Splash Resistance | Level X | Level X |
| GENERAL REQUIREMENTS (as per EN420:2003) | | |
| Glove Dexterity | Level 1 | Level 4 |
| ELECTROSTATIC PROPERTIES - Optional (as per EN1149-2:1997) | | |
| Dry Conditions Test (for Arc Welding) | 10 ⁶ ohms | 10 ⁵ ohms |

GLOVES WHICH DO NOT COMPLY SHOULD NOT BE USED FOR WELDING PURPOSES

TUFFSAFE Leather Gauntlet

- Full five finger welder's gauntlet manufactured from select split leather with a full cotton lining with a one piece back
- Reinforced palm and thumb for increased wear with no exposed seams to burn
- Kevlar® sewn throughout

Size: 10.

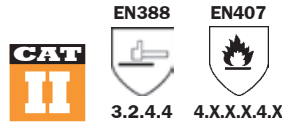


TFF-961-6630K

KENNEDY Reversible Gauntlet

- Reversible (ambidextrous) lined, green gauntlet
- Type A

Size: 10½.



KEN-961-1940K



TUFFSAFE Leather Gloves

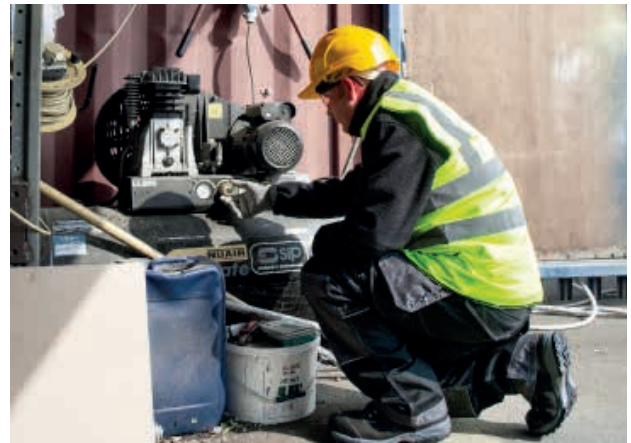
- Soft, high quality nappa leather palm and stiff 150mm chrome leather cuff
- Offers a superb feel and good durability for precision welding
- 360mm overall length

Size: 10.



TFF-961-1650K

Workwear



There are many workplace areas where body protection may be required, ranging from coping with the elements when working outdoors through to working with hazardous substances or on a construction site.

What the law requires

Under regulation 4 of the **Personal Protective Equipment at Work Regulations 1992**, it is the employer's responsibility to identify potential hazards in the workplace and if these cannot be rectified by any other means, then personal protective equipment must be provided free of charge and with appropriate training.

EN Safety Standards

Garments featured throughout the workwear section of this catalogue carry icons denoting the relevant **EN safety standards** to which they comply.

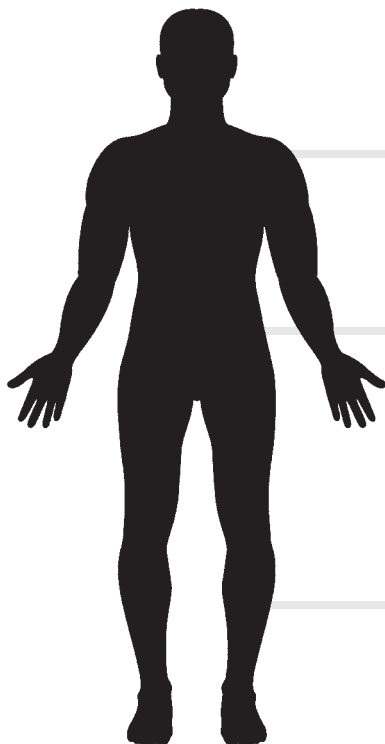
Look after your workwear

When it comes to caring for your clothing, always read the inside label. It's your guide to the dos and don'ts when cleaning your garments.

The Perfect Fit

It's vital to ensure clothing fits correctly to avoid compromising your safety or comfort.

The following is a quick guide to acquiring accurate measurements for your collar, chest, waist, hips and legs. We recommend wearing light, close-fitting clothes when taking measurements and always use a flexible cloth measuring tape.



Collar

Measure fully around your neck, just above the collarbone. Take the measurement and add 1/2".

Chest

Measure across the fullest part of the chest/bust, ensuring you keep the tape straight across your back and under your arms.

Waist

Measure across the narrowest part of the waist, keeping the tape straight.

Hips

Measure across the widest part of the hip, again keeping the tape straight.

Legs

Measure the inside leg from the crotch to where you prefer the trouser leg to end, usually just below the ankle.

Care label symbols are as follows:

Dry Cleaning



Do not wash



Hand wash

Washing



Do not wash



Hand wash



40° wash



40° wash reduced action



40° wash delicate programme

Bleaching Chlorine



Do not bleach



Bleach OK



Do not use chlorine bleach



Chlorine bleach OK

Drying



No tumble



Low tumble



High tumble

Ironing



Do not iron



Medium iron



Cool iron



Hot iron

Hi-Vis Clothing



Hi-Vis Polo Shirts

SFTE04

Designed to keep wearers safe from harm.

- Material: Polyester
- Short sleeves

Colour: Orange.



| Size | Order Code |
|------|----------------|
| | SSF-962 |
| M | -4735F |
| L | -4736G |
| XL | -4737H |
| 2XL | -4738J |



EN20471

Hi-Vis Waistcoats

Manufactured to EN20471. 100% polyester with Hook-n-Loop fastening.

Yellow & Orange
All tape bands are 50mm wide.



Yellow & Orange EN20471 Class 1
1 Body Band with Braces



Yellow & Orange EN20471 Class 2
2 Body Bands with Braces



EN343



EN20471

| EN20471 Class | Bands Body | Braces | Size | Order Code TFF-962 | |
|---------------|------------|--------|------|--------------------|--------|
| | | | | Yellow | Orange |
| 1 | 1 | ✓ | M | -4211B | -4241B |
| | 1 | ✓ | L | -4212C | -4242C |
| | 1 | ✓ | XL | -4213D | -4243D |
| | 1 | ✓ | 2XL | -4214E | -4244E |
| 2 | 2 | ✓ | M | - | -4251B |
| | 2 | ✓ | L | - | -4252C |
| | 2 | ✓ | 2XL | - | -4254E |
| | 2 | ✓ | 3XL | -4235F | - |

These garments comply with the requirements of Directive 89/686/EEC and the above reference standards.



Hi-Vis Fleece Jacket

Meets EN20471 Class 3/2 requirements. Fleece comes with mesh inner lining, elasticated cuffs and two side entry pockets.



| Size | Order Code |
|------|----------------|
| | TFF-962 |
| M | -4751B |
| L | -4752C |
| 2XL | -4754E |



EN20471

Hi-Vis Sweatshirt

Torso meets EN20471 Class 3/2 requirements.



| Size | Order Code |
|------|----------------|
| | TFF-962 |
| L | -4742C |
| XL | -4743D |
| 2XL | -4744E |



EN20471

Hi-Vis Body 1

Certified to EN20471 Class 2. PU coating to hi-vis side. Reversible bodywarmer 'zipout'. Knitted collar. Heavy duty zip. Navy polycotton diamond quilt on reverse. Two patch pockets on quilted side.



| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Yellow | Orange |
| M | -4711B | -4716A |
| L | -4712C | -4716B |
| XL | -4713D | -4716C |
| 2XL | -4714E | -4716D |

Hi-Vis Executive Vest

Meeting EN20471 Class 2/2 requirements. Lightweight and breathable vest. Zip front.



| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Yellow | Orange |
| M | -4721B | -4726A |
| L | -4722C | -4726B |
| XL | -4723D | -4726C |
| 2XL | -4724E | -4726D |
| 3XL | -4725F | -4726E |



EN20471

Hi-Vis Polo Shirt

Meets EN20471 Class 3/2 requirements. Lightweight and breathable polyester fabric.



| Size | Order Code |
|------|----------------|
| | TFF-962 |
| M | -4731B |
| L | -4732C |
| XL | -4733D |
| 2XL | -4734E |



EN20471

Lightweight Jackets

Satin yellow knitted polyester. All tape bands are 50mm wide.

EN20471: Class 3 area of fluorescent background and retro reflective tape.

EN20471: Class 2 retro reflective tape performance.



These garments comply with the requirements of Directive 89/686/EEC and the above reference standards.

| Bands Body | Braces | Size | Order Code |
|------------|--------|------|------------|
| | | | TFF-962 |
| 2 | ✓ | M | -4411B |
| 2 | ✓ | L | -4412C |
| 2 | ✓ | XL | -4413D |
| 2 | ✓ | 2XL | -4414E |



5-in-1 Hi-Vis Waterproof & Breathable Coats

Features an outer layer, detachable inner jacket, detachable inner sleeves and detachable hood.

Outer Layer: Bands over each shoulder meet **EN20471 Class 3/3** requirements and **EN343 Class 3/3**. Two way zip with press stud storm flap protection. Fleece collar. External phone pocket and clear ID pouch. Two 'D' rings. Zip security pocket. Two external pockets. Adjustable Hook-n-Loop cuff straps.

Inner Layer/Body Warmer: One band over each shoulder meeting **EN20471 class 3/2** requirements. Two way zipper for attaching to outer layer or wearing independently. Fleece collar. External phone pocket with 'D' ring. Two external side pockets on both hi-vis and quilted layer. Elasticated cuffs. Removable zipped sleeves to create body warmer.



☑ These garments comply with the requirements of Directive 89/686/EEC and the above reference standards.

| Size | Order Code TFF-962 |
|------|--------------------|
| S | -8010A |
| M | -8011B |
| L | -8012C |
| XL | -8013D |
| 2XL | -8014E |



EN 20471



EN 343

Waterproof Hi-Vis Coats

Satin yellow PU coated polyester with fixed nylon quilted lining. Heavy weight two way zip with studded storm flap knitted storm cuffs, concealed hood with drawstring. Fully taped seams.

PREN343 1993: Class 3 (highest) water penetration; Class 1 (lowest) water vapour resistance.

EN20471 1994: Class 3 area of fluorescent background and retro reflective tape.

EN20471 1994: Class 2 retro reflective tape performance.



EN 20471



EN 343

☑ These garments comply with the requirements of Directive 89/686/EEC and the above reference standards.

| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Yellow | Orange |
| M | -4011B | -4031B |
| L | -4012C | - |
| 2XL | -4014E | -4034E |

Breathable Hi-Vis Coats

Certified to **EN20471 Class 3**. Certified to **EN343 Class 2** breathing fabric. Polyester with PU coating. Concealed hood, full zip front with double storm flap. Nylon/polyester quilt lining, self double yoke back. Lower pockets with flap and elasticated storm cuffs. Stitched and welded seams. Reflective material.



EN 20471



EN 343

| Size | Weight each | Order Code TFF-962 |
|------|-------------|--------------------|
| M | 1050g | -4051B |
| L | 1050g | -4052C |
| XL | 1050g | -4053D |
| 2XL | 1050g | -4054E |

Breathable Hi-Vis Trousers

Certified to **EN20471**. Breathable fabric. Polyester with PU coating. Overtrousers with elasticated waist. Studded ankles. Reflective material.



EN 20471

| Size | Order Code TFF-962 |
|------|--------------------|
| M | -4061B |
| L | -4062C |
| XL | -4063D |
| 2XL | -4064E |

Waterproof Hi-Vis Trousers

Satin yellow knitted polyester lightweight overtrousers with elasticated waist, Hook-n-Loop front fastening and fully taped waterproof seams. Complete with two 50mm reflective bands around each leg.

PREN343 1993: Class 3 (highest) water penetration; Class 1 (lowest) water vapour resistance.

EN20471 1994: Class 1 area of fluorescent background and retro reflective tap

EN20471 1994: Class 2 retro reflective tape performance.



EN 20471



EN 343

☑ These garments comply with the requirements of Directive 89/686/EEC and the above reference standards.

| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Yellow | Orange |
| M | - | -4041B |
| L | - | -4042C |
| XL | - | -4043D |
| 2XL | -4024E | -4044E |

SITESAFE Hi-Vis Sweatshirts Orange

Hi-vis sweatshirts designed to keep wearers safe whilst being warm and comfortable. 100% polyester with rib neck and silver reflective tape around the chest, waist, back sleeves and shoulders.



EN 20471

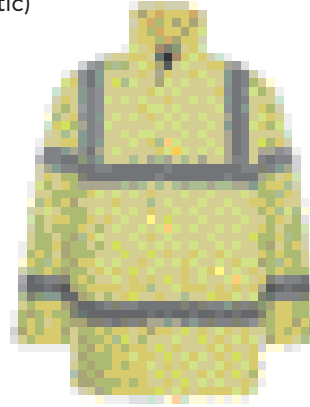
Order Code
SSF-962

- 4745F
- 4746G
- 4747H
- 4748J

Hi-Vis Coats

SFJ01

- Material: Polyester
- 300 Denier construction
- 120gsm
- Anti static
- Waterproof and wind resistant
- No pockets
- EN20471
- EN1149-5:2008 (Anti static)



EN 20471

| Size | Order Code SSF-962 | |
|------|---------------------------|--------|
| | Yellow | Orange |
| M | -4759K | -4769W |
| L | -4760L | -4770X |
| XL | -4761M | -4771Y |
| 2XL | -4762N | -4772Z |
| 3XL | -4763P | -4773A |

Hi-Vis Fleece Jacket Orange

100% polyester. 3M silver reflective tape around the waist, shoulders and back. Elasticated collar and cuffs ensure wearer comfort.



EN 20471

| Size | Order Code SSF-962 | |
|------|---------------------------|--------|
| | M | -4755F |
| L | -4756G | |
| XL | -4757H | |

Hi-Vis Lightweight Jackets Orange

100% polyester tricot lightweight jackets. Very comfortable with 5cm reflective tape around the sleeves, waist, shoulders and back. 300m reflective distance and hook and loop closure.



EN 20471

| Size | Order Code SSF-962 | |
|------|---------------------------|--------|
| | M | -4415F |
| L | -4416G | |
| XL | -4417H | |
| 2XL | -4418J | |

Hi-Vis Bomber Jackets

SFJ02

With 5cm width silver reflective tape banding on the sleeves, body, shoulders and back.

- Material: Polyester
- Closure type: Zipper and snap
- 1x chest pocket
- 2x outer pockets
- 2x inner pockets



EN 20471

| Size | Order Code SSF-962 | |
|------|---------------------------|--------|
| | Yellow | Orange |
| M | -5501A | -5501F |
| L | -5501B | -5501G |
| XL | -5501C | -5501H |
| 2XL | -5501D | -5501J |
| 3XL | -5501E | -5501K |

TUFFSAFE Rainsuit Jackets

Lightweight, comfortable and stretchable. 100% waterproof. Zip closure under flap with press studs. Elasticated wristbands. Seams double welded, attached hood, 2x outside pockets.



Navy Yellow

| Colour | Size | Order Code TFF-962 |
|--------|------|-----------------------|
| Navy | S | -2050A |
| | M | -2050B |
| | L | -2050C |
| | XL | -2050D |
| | 2XL | -2050E |
| Yellow | S | -2052A |
| | M | -2052B |
| | L | -2052C |
| | XL | -2052D |
| | 2XL | -2052E |
| | 3XL | -2052F |

Rainsuit Trousers

Lightweight, comfortable and stretchable. 100% waterproof. High frequency welded seams. Elasticated waist. Legs opening adjusted by snap studs.



Navy Yellow

| Colour | Size | Order Code TFF-962 |
|--------|------|-----------------------|
| Navy | S | -2051A |
| | M | -2051B |
| | L | -2051C |
| | XL | -2051D |
| | 2XL | -2051E |
| Yellow | S | -2053A |
| | M | -2053B |
| | L | -2053C |
| | XL | -2053D |
| | 2XL | -2053E |
| | 3XL | -2053F |

SITESAFE Winter Jackets

Waterproof fabric with taped seams. Quilt lining. Concealed hood. Two outer lower pockets. One inner pocket.



Colours are for guidance only



Black Navy

Yellow Orange

| Colour | Size | Order Code SSF-962 |
|--------|------|-----------------------|
| Black | S | -6250C |
| | M | -6250D |
| | L | -6250E |
| | XL | -6250F |
| | 2XL | -6250G |
| Navy | S | -6254C |
| | M | -6254D |
| | L | -6254E |
| Yellow | XL | -6254F |
| | 2XL | -6254G |
| | S | -6256C |
| Orange | M | -6256D |
| | L | -6256E |
| | XL | -6256F |
| Orange | 2XL | -6256G |
| | S | -6269C |
| | M | -6269D |
| Orange | L | -6269E |
| | XL | -6269F |
| | 2XL | -6269G |

2-Piece Rainsuits in Yellow or Navy

Waterproof hooded jacket with drawstring closure, storm front with plastic zipper. Improved user comfort. The trousers have an elasticated waist band.



Navy Yellow

Colours are for guidance only

| Colour | Size | Order Code SSF-962 |
|--------|------|-----------------------|
| Navy | S | -6170A |
| | M | -6170B |
| | L | -6170C |
| | XL | -6170D |
| | 2XL | -6170E |
| Yellow | S | -6171A |
| | M | -6171B |
| | L | -6171C |
| | XL | -6171D |
| | 2XL | -6171E |

TUFFSAFE Micro Fleece

400gsm, micro fleece with full length YKK zip.
Soft cuff design.
Internal pockets.
External large YKK zipped pockets.

Colours:
black, navy and royal.



Black

Royal



Navy

| Size | Order Code TFF-962 | | |
|------|---------------------------|--------|--------|
| | Black | Navy | Royal |
| S | -3230B | -3231B | -3232B |
| M | -3230C | -3231C | -3232C |
| L | -3230D | -3231D | -3232D |
| XL | -3230E | -3231E | -3232E |
| 2XL | -3230F | -3231F | -3232F |
| 3XL | -3230G | -3231G | - |
| 4XL | -3230H | - | - |

SITESAFE Fleece

300gsm, anti-pill fleece.
Interactive full zip.
Comfort cuffs.
Two hip pockets with zip closures.
Combining quality and durability.

Colours:
black and navy.



Navy



Black

| Size | Order Code SSF-962 | |
|------|---------------------------|--------|
| | Black | Navy |
| S | -3760C | -3764C |
| M | -3760D | -3764D |
| L | -3760E | -3764E |
| X | -3760F | -3764F |
| 2XL | -3760G | -3764G |



Chrome Leather Welder's Clothing

A range of economically priced rugged workwear manufactured from high quality selected chrome leather. Spatter-resistant and tear-resistant. The full range offers head-to-toe protection against weld spatter and grinding sparks. Suitable for use in workshops, foundries and on-site.

Aprons

Generous fit for full torso and upper leg protection against weld spatter and grinding sparks, whilst offering freedom of movement for the wearer. All seams have heavy duty stitching for durability and extended wear.

Available in a choice of tie or buckle fastening.

CE approved to EN470-1 CAT II.

Colours: available in a choice of grey or red.



| Colour | | | |
|-------------------------|----------|--|---------------|
| Tie Fastening | | | |
| Grey | 60 x 90 | | -8020K |
| Grey | 60 x 105 | | -8030K |
| Red | 60 x 90 | | -5410K |
| Buckle Fastening | | | |
| Grey | 60 x 90 | | -8060K |
| Red | 60 x 90 | | -5440K |

Sleeves

Can be used independently or in conjunction with an apron or other garment to offer optimum protection of the lower arm and elbow. With elasticated openings. All seams have heavy duty stitching for durability and extended wear. One size.

CE approved to EN470-1 CAT II.



| Colour | Size | Order Code |
|----------------|------|---------------|
| KEN-885 | | |
| Grey | 45cm | -8220K |
| Red | 45cm | -5310K |

Jackets

Stud fastening jacket for full neck to waist protection against weld spatter and grinding sparks. With external side pocket, neck is lined with soft split leather for extra comfort.

All seams have heavy duty stitching for durability and extended



| Colour | Size | Order Code |
|----------------|------|---------------|
| KEN-885 | | |
| Grey | L | -8160K |
| Grey | XL | -8170K |
| Red | L | -5222K |
| Red | XL | -5223K |

Gaiters

For wearing over workshoes to protect against weld spatter and grinding sparks. With Hook-n-Loop fastening on back of calf and buckle adjustment around shoe. Double stitched and riveted seams for extra heavy duty use.

CE approved to EN470-1 CAT II.

Size: 35cm.



| Colour | Order Code |
|----------------|---------------|
| KEN-885 | |
| Grey | -8260K |

TUFFSAFE 'Guard Master' Disposable Hooded Coveralls

Type 5/6 coveralls.
Disposable coveralls with hood, elastic cuffs, back and ankles. 1-way zip at front with 1-ply stormflap. Made from 55gsm SMS (spunbond, microporous spunbond) material with inside stitching. For noxious dust and splash. Ideal for dry particulate barrier and repellency. Lightweight and breathable. Liquid repellent. Designed to zip over neck to above the chin to protect exposed neck areas.



Safety glasses, face mask, gloves and boots sold separately.



| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Blue | White |
| S | -3800A | -3810A |
| M | -3801B | -3811B |
| L | -3802C | -3812C |
| XL | -3803D | -3813D |
| 2XL | -3804E | -3814E |
| 3XL | - | -3815F |

TUFFSAFE 'Guard Master PLUS' Disposable Hooded Coveralls

Type 5/6 coveralls.
Non-woven disposable coveralls with elasticated hood, cuffs, back and ankles. Anti-static. Liquid repellent. Diamond crotch gusset improves manoeuvrability. 2-way zip at front with 1-ply adhesive tape stormflap. Laminated microporous film 65gsm with inside stitching. Provides protection against airborne solid particulates, liquid chemicals, infective agents, chemical and radioactive contamination. Designed to zip over neck to above the chin to protect exposed neck areas.



Safety glasses, face mask, gloves and boots sold separately.



| Size | Order Code TFF-962 | |
|------|--------------------|--------|
| | Blue | White |
| S | -3830A | -3831B |
| M | -3831B | -3832C |
| L | -3832C | -3833D |
| XL | -3833D | -3834E |
| 2XL | -3834E | -3835F |
| 3XL | -3835F | - |

SITESAFE Disposable Coveralls

100% polypropylene single-use disposable coverall for minimal risk and nuisance. Provides protection from non-hazardous dust and liquid splash. Designed for comfortable fit with elasticated ankles, cuffs, hood and waist. Suitable for DIY and home maintenance, food processing, general cleaning, site visitors, stores and warehouse use etc.



Overshoes supplied separately.

| Size | Order Code SSF-962 | |
|------|--------------------|--------|
| | Blue | White |
| M | -1250C | -1253C |
| L | -1250D | -1253D |
| XL | -1250E | -1253E |
| 2XL | -1250F | -1253F |

Non-woven Visitor Coats

This visitor's coat from Sitesafe® is manufactured from a 35gm² non-woven material, it has a collar and has a stud fastening front.

Colour: white.

PACK OF 25



| Size | Order Code SSF-962 | |
|------|--------------------|--------|
| | Blue | White |
| M | -9002C | -9002D |
| L | -9002D | -9002E |
| XL | -9002E | - |

Disposable Visitor Coat

This single use SiteSafe® visitor's coat is manufactured from low density polyethylene (LDPE) material and has front press stud fastening.

One size only.

Colour: white.

PACK OF 25



SSF-962-9000K

SITESAFE Disposable Hair Nets

Disposable bonded polypropylene hair nets have a fine open weave with stitched elasticated opening. One size fits all.



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -2900B |
| White | 100 | -2900W |

Bouffant Caps

The Sitesafe® disposable bouffant will completely cover your hair, made from soft and lightweight polypropylene with an stitched elasticised edge. One size fits all.



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -1260B |
| White | 100 | -1260W |

Mob Caps

SiteSafe® Mob caps completely cover a person's hair, manufactured from soft and comfortable, thermally bonded light polypropylene fibre with an encapsulated double stitched elasticated edge. One size fits all.



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -5500B |
| Green | 100 | -5500G |
| Red | 100 | -5500R |
| White | 100 | -5500W |
| Yellow | 100 | -5500Y |

Beard Masks

SiteSafe® with single elasticated fastening, beard mask is manufactured from polypropylene. One size only.

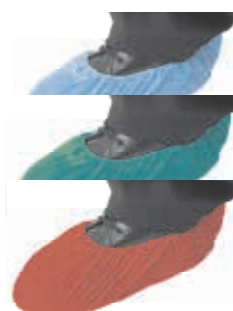


PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -1200B |
| White | 100 | -1200W |

Disposable Overshoes

Provides a cost effective solution to many problems associated with cross contamination. Manufactured from polyethylene with an elasticated closure.



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -5800B |
| Green | 100 | -5800G |
| Red | 100 | -5800R |
| White | 100 | -5800W |
| Yellow | 100 | -5800Y |

Disposable Polythene Aprons

SiteSafe® disposable single use aprons manufactured from low density polythene. One size only 690 x 1070mm.



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -1150B |
| Green | 100 | -1150G |
| Red | 100 | -1150R |
| White | 100 | -1150W |
| Yellow | 100 | -1150Y |

Polyethylene Oversleeves

Protective sleeve and arm covering, elasticated at both ends for a comfortable fit manufactured from polyethylene. Available in a range of colours.

One size: 40 x 20cm (16" x 8").



PACK OF 100

| Colour | Pack Quantity | Order Code |
|--------|---------------|------------|
| Blue | 100 | -5810B |
| Green | 100 | -5810G |
| Red | 100 | -5810R |
| White | 100 | -5810W |
| Yellow | 100 | -5810Y |

TUFFSAFE Vinyl Disposable Gloves

Sensitive, strong and comfortable. USDA accepted. For food, hospital, laboratory use and countless applications. Intermediate Design. For minimal risk only.

VINYL



PACK OF 100

| Colour | Size | Order Code |
|--------|------|------------|
| Blue | XL | -7033D |



Back Support Belt

Provides comfortable support from lower back strain. Helps to reduce lower back discomfort. 8" wide elasticated do back support belt. 1 1/4" wide adjustable shoulder straps.



| Waist Size | Order Code |
|-------------|------------|
| S - 28-32" | -2010A |
| M - 32-38" | -2011B |
| L - 38-47" | -2012C |
| XL - 46-56" | -2013D |

Knee Pad Inserts

Work trouser insert knee pads manufactured from 100% lightweight flexible moulded polythene. Does not hinder the wearer when walking. Supplied in pairs. Manufactured to: EN14404:2004+A1:2010.

Size: 215 x 165mm.



TFF-962-8820A

Gel Knee Pads

DFT026

Silicone gel for premium comfort and fit. Tough, abrasion-resistant shell for excellent protection. Adjustable straps for flexible and secure fitting.

Size: 180 x 220mm.



TFF-962-8844G

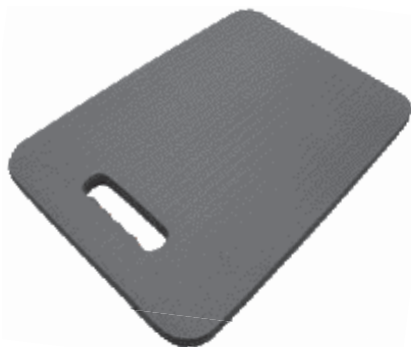


Knee Saver Mat

Manufactured from a closed cell PVC/nitrile blend. Reduces knee pain and lower back stress caused by regular kneeling. Resistant to oils and chemicals.

Size: 530 x 360 x 25mm.

Colour: black.



SSF-946-4650R



High Density Foam Knee Pads

Quick release Hook-n-Loop fastening. One size fits all. Non-skid material helps avoid slipping.

Size: 145 x 250mm.



KEN-962-4980K

Partial Hard Case Knee Pads

Quick release Hook-n-Loop fastening. One size fits all. Flexible straps prevent binding behind the knee. Non-marring face protects surfaces. Foam cushion beneath cap.

Size: 180 x 250mm.



KEN-962-4990K

Neoprene Gel Knee Pads

Quick release Hook-n-Loop fastening. One size fits all. Flexible straps prevent binding behind the knee.

Size: 190 x 230mm.



KEN-962-5010K

Neoprene Gel Elbow Pads

Quick release Hook-n-Loop fastening. One size fits all. Flexible straps for added comfort. Gel filled pad absorbs impact.

Size: 150 x 190mm.



KEN-962-5020K

KENNEDY PROFESSIONAL Tool Tethers, Lanyards & Accessories

Any Tool, Tether IT!

Dropped tools are a major cause of workplace injury and fatalities – most of which could be avoided with the correct tethering and use of tools. Safe use of tools at height begins with the tool tether, which acts as a secure attachment point for lanyards and ultimately tool belts and harnesses. Utilising a patented system developed by Tool@rrest, a pioneering name in the field of tethered tools, Kennedy can Retr@fit almost all new and existing hand tools with a certified, statistically fail-safe tether. This means you can enjoy industry leading tether safety without buying new tools and Retr@fitting can be carried out on your site or in a factory setting in a matter of seconds. And it doesn't stop there.

Kennedy can now offer a complete solution to help prevent tools from falling, including securing of the tools-in-waiting (tools in the work belt or holster) and those in active use.



Wrist Lanyards

TWS-20C

Supplied complete with wrist wraps and swivel tail. Toggle style tails are also available.

Maximum working capacity: 2.0kg.



KEN-596-1574D
832

Lanyard Tails

Wrist lanyard tails for use with Kennedy wrist wraps.

Maximum working capacity: 2.0kg.

TTW-20S



TTW-20T

| Product Number | Max. Working Capacity | Order Code |
|----------------|-----------------------|------------|
| TTW-20S | 2.0kg | -1544D |
| TTW-20T | 2.0kg | -1546F |

KENNEDY PROFESSIONAL Quick Change Tool Lanyard

TLE-1QC
Stretchable cord surrounded by tubular polyester webbing. Available with a range of tails for easy application on different tools.
Maximum working capacity: 2.5kg.



KEN-596-1482B



Quick Change Tool Lanyard Tails

For use with Kennedy quick change tool lanyard only.



TTQ-25C



TTQ-25T

| Product Number | Max. Working Capacity | Order Code |
|----------------|-----------------------|------------|
| TTQ-25C | 2.5kg | -1524D |
| TTQ-25T | 2.5kg | -1526F |

Webbing Lanyards TLW-1C2

100cm webbing lanyard. Durable polyester webbing construction. Complete with two stainless steel carabiners.
Maximum working capacity: 2.5kg.



KEN-596-1486F

Quick Change Belt Loops

TBL-25Q
Snap-fit tool belt anchor point for securing tool lanyards.
Maximum working capacity: 2.5kg.



KEN-596-1452B

Power Tool WR@P

For use with Li-Ion and Ni-Cad 18V power tools only. High strength nylon webbing. Innovative, patent-pending design.
Maximum working capacity: 2.5kg.



KEN-596-1506F

Retr@ct 360 Retracting Lanyard

High-impact resistant polyamide casing. Self cleaning re-wind brake and release mechanism. 360° rotational capability. Patent pending. SP30 cord tensile strength 260kg.

Length: 1.2m (fully extended).
Maximum working capacity: 2.5kg.

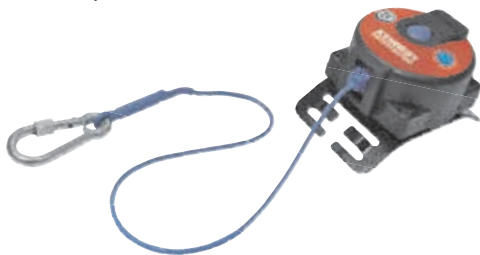
TLR-135

Standard lanyard with snap hook carabiner and single harness buckle.



TLR-130

With screw carabiner and non-slip double harness buckle - preferred and specified by off-shore users



| Product Number | Max. Working Capacity | Order Code |
|----------------|-----------------------|------------|
| TLR-135 | 2.5kg | -3020K |
| TLR-130 | 2.5kg | -3010K |

Lifting Buckets

Rugged, tested and large enough for multiple tools and applications. With eight internal carabiners stitched in to secure tools-in-waiting. 250mm diameter.

CE Certified with serial number for LOLER traceability.

TBB-34C

Standard bucket with open top.

TBB-34T

Toggle drawstring type - recommended for use in situations where untethered fasteners or sockets are being worked with. Closing the drawstring ensures that these loose items are prevented from falling in the event of a bucket tip or drop.

Safe working load: 34kg.

-1442B



-1445E



| Product Number | Type | SWL | Order Code |
|----------------|----------------|------|------------|
| TBB-34C | Open Top | 34kg | -1442B |
| TBB-34T | Toggle Closing | 34kg | -1445E |

Footwear



Wear foot protection to ensure protection in hazardous conditions. Data supplied by the HSE states that Slips and Trips is still the largest cause of reportable incidents. A clean and tidy workplace plus the correct footwear can help to reduce slips and trips plus other accidents.



Hazards

Falling objects, crushing loads, slips and trips, wet, hot or cold conditions. Electrostatic discharge, metal and chemical splash.

What the law requires

Under regulation 4 of the **Personal Protective Equipment at Work Regulations 1992**, it is the employer's responsibility to identify potential hazards in the workplace and if these cannot be rectified by any other means, then personal protective equipment must be provided free of charge and with appropriate training.

In the case of safety footwear, full compliance is more likely to be achieved through consulting with the workforce on their needs and preferences.

| Classification | SB | SBP | S1 | S1P | S2 | S3 | S4 | S5 |
|--------------------------------------|----|-----|----|-----|----|----|----|----|
| 200 Joule toecap | • | • | • | • | • | • | • | • |
| Protection from upward penetration | | • | | • | | • | | • |
| Fully enclosed energy absorbing heel | | | • | • | • | • | • | • |
| Anti-static properties | | | • | • | • | • | • | • |
| Water resistant upper | | | | | • | • | • | • |
| Cleated outsole | | | | | | • | | • |
| Waterproof upper | | | | | | | • | • |

Applicable Standards

- EN ISO 20345: 2011.** Safety Footwear with Toecaps
- EN ISO 20346: 2014.** Protective Footwear with Toecaps
- EN ISO 20344: 2011.** Slip resistance

Slip Resistance

Slip resistance is covered by **EN ISO 20344:2004 (A1: 2007)**. Footwear which has passed the EN test for slip resistance will be marked with one of the following codes

| | |
|------------|--|
| SRA | Slip resistance on ceramic tile floors with sodium lauryl sulfate solution (SLS) |
| SRB | Slip resistance on steel floors with glycerol |
| SRC | Passed both SRA and SRB tests |

Toecaps and midsole protection

Different materials can provide the 200 Joule toecap protection. The main materials are steel and composite. Composite has various advantages over steel. The main two reasons are foot temperature when working outside. Composite does not conduct heat the same as steel therefore in cold conditions your feet stay warmer. The other is it does not set off metal detectors.

Midsole protection again there are two main materials, Steel or Kevlar®. Kevlar (aramid fibre) has advantages over steel that it is more flexible, does not conduct the heat and does not set off metal detectors.

In addition to the safety rating for the footwear from the highest level S5 down to the lowest level SB. The following features can be added.

| | |
|------------|-------------------------|
| HRO | Outsole heat resistant |
| HI | Heat insulation of sole |
| CI | Cold insulation of sole |
| WR | Water Resistant |

| | |
|------------|--|
| M | Metatarsal Protection |
| ESD | Protects against ElectroStatic Discharge |
| FO | Sole resistant to fuel oils |
| E | Energy absorbing seat |

Sizing Guide (Sizes are not standard)

| | | | | | | | | | | | | | | |
|------------------|----|----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| UK | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Europe | 36 | 37 | 38 | 39½ | 40½ | 42 | 43 | 44½ | 45½ | 47 | 48 | 49 | 51 | 52 |
| Asia | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| USA (Men) | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| (Women) | 4½ | 5½ | 6½ | 7½ | 8½ | 9½ | 10½ | 11½ | 12½ | 13½ | 14½ | 15½ | 16½ | 17½ |

NOTE: Most shoe companies do not use absolutely correct size conversions and so it is quite common to have some variation from these tables. The table represents the 'best fit' solution i.e. calibrated to the nearest size to its counterpart.

Wear foot protection to ensure protection in hazardous conditions. Data supplied by the HSE states that Slips and Trips is still the largest cause of reportable incidents. A clean and tidy workplace plus the correct footwear can help to reduce slips and trips plus other accidents.



S5

The highest protection level making S5 products ideal for working in most environments. Waterproof upper keeps your feet dry. Cleated outsole reduces mud build up. Fully enclosed energy absorbing heel reduces heel impact and supports the ankle. Penetration Resistant Midsole provides protection if sharp objects penetrate the sole. 200 Joule toecap protects the toes from dropped items or from being crushed.



See page 840

S3

Water resistant (not recommended for immersion). Cleated outsole. Fully enclosed energy absorbing heel reduces heel impact and supports the ankle. Penetration Resistant Midsole provides protection to sharp objects penetrate. 200 Joule toecap protects from items dropped or being crushed.



See pages 836 - 838

SB

We would recommend you moving up to a minimum protection level of S1P. 200 Joule toecap protects the toes from dropped items or from being crushed.



See page 840

S1P

Fully enclosed energy absorbing heel reduces heel impact and supports the ankle. 200 Joule toecap protects the toes from dropped items or from being crushed. Penetration Resistant Midsole provides protection if sharp objects penetrate the sole.



See page 839

Accessories

A range of socks insoles and replacement laces to suit safety boots, shoes and wellingtons.



See page 840

TUFFSAFE Waterproof Boots

Polyurethane sole with smooth shiny leather upper. 200J steel toecap. Steel midsole. High quality full length footbed for increased comfort. Waterproof breathable inner bag helps keep the feet dry and comfortable
EN ISO 20345: 2011



S3
WR
SRC

| Size | Order Code TFF-963 |
|------|-----------------------|
| 3 | -0173C |
| 4 | -0174D |
| 5 | -0175E |
| 6 | -0176G |
| 7 | -0177H |
| 8 | -0178J |
| 9 | -0179K |
| 10 | -0180L |
| 11 | -0181M |
| 12 | -0182N |
| 13 | -0183P |

Chukka Boots

Polyurethane sole with smooth shiny action leather upper. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

S3
SRC

Composite

- Metal free
- 200J composite toecap
- Composite midsole

Metal

- 200J steel toecap
- Steel midsole

Dealer Boots

Polyurethane sole with leather upper. 200J steel toecap. Steel midsole. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

S3
SRC



| Size | Order Code TFF-963 | |
|------|--------------------|--------|
| | Composite | Metal |
| 3 | -1903K | -2003K |
| 4 | -1904K | -2004K |
| 5 | -1905K | -2005K |
| 6 | -1906K | -2006K |
| 7 | -1907K | -2007K |
| 8 | -1908K | -2008K |
| 9 | -1909K | -2009K |
| 10 | -1910K | -2010K |
| 11 | -1911K | -2011K |
| 12 | -1912K | -2012K |
| 13 | -1913K | -2013K |



| Size | Order Code TFF-963 |
|------|-----------------------|
| 3 | -2503K |
| 4 | -2504K |
| 5 | -2505K |
| 6 | -2506K |
| 7 | -2507K |
| 8 | -2508K |
| 9 | -2509K |
| 10 | -2510K |
| 11 | -2511K |
| 12 | -2512K |
| 13 | -2513K |

TUFFSAFE Metatarsal Boots

Black. Lightweight flexible Metatarsal safety boot with Poron XRD (TM) internal Metatarsal protection. Leather upper with breathable inner lining mesh and Dual Density PU sole. Removable EVA comfort footbed. 200 Joule steel toe cap with 1100N steel midsole. Padded mesh collar and tongue with energy absorbing heel and oil resistant outsole. Antistatic.
EN ISO 20345: 2011

S3
SR3
M

Personal Protection



| Size | Order Code TFF-963 |
|------|-----------------------|
| 6 | -1074C |
| 7 | -1074E |
| 8 | -1074G |
| 9 | -1074J |
| 10 | -1074L |
| 11 | -1074N |
| 12 | -1074Q |
| 13 | -1074S |

Hiker Boots

Polyurethane sole with action nubuck leather upper. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

S3
SRC

Composite

- Metal free
- 200J composite toecap
- Composite midsole



| Size | Order Code TFF-963 |
|------|-----------------------|
| 3 | -4423K |
| 4 | -4424K |
| 5 | -4425K |
| 6 | -4426K |
| 7 | -4427K |
| 8 | -4428K |
| 9 | -4429K |
| 10 | -4430K |
| 11 | -4431K |
| 12 | -4432K |
| 13 | -4433K |

Rigger Boots

Heat resistant outsole with leather upper. 200J steel toecap. Steel midsole. High quality full length foot bed for increased comfort. Kick stop for easy removal of boots without damaging the leather. Heat resistant outsole tested to withstand 300°C.
EN ISO 20345: 2011

S3
SRC
HRO



| Size | Order Code TFF-963 | Size | Order Code TFF-963 |
|------|-----------------------|------|-----------------------|
| 3 | -7233K | 9 | -7239K |
| 4 | -7234K | 10 | -7240K |
| 5 | -7235K | 11 | -7241K |
| 6 | -7236K | 12 | -7242K |
| 7 | -7237K | 13 | -7243K |
| 8 | -7238K | | |

TUFFSAFE Safety Trainers

Polyurethane sole with action nubuck leather upper. High quality full length footbed for increased comfort
EN ISO 20345: 2011

S3
SRC



Composite

- Metal free
- 200J composite toecap
- Kevlar® midsole

| Size | Order Code TFF-963 |
|------|-----------------------|
| 3 | -8423K |
| 4 | -8424K |
| 5 | -8425K |
| 6 | -8426K |
| 7 | -8427K |
| 8 | -8428K |
| 9 | -8429K |
| 10 | -8430K |
| 11 | -8431K |
| 12 | -8432K |
| 13 | -8433K |

Four Eyelet Shoes

Polyurethane sole with smooth shiny action leather upper. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

S3
SRC

Composite

- Metal free
- 200J composite toecap
- Composite midsole

Metal

- 200J steel toecap
- Steel midsole

| Size | Order Code TFF-963 | |
|------|--------------------|--------|
| | Composite | Metal |
| 3 | -8003K | - |
| 4 | -8004K | -8044K |
| 5 | -8005K | -8045K |
| 6 | -8006K | -8046K |
| 7 | -8007K | -8047K |
| 8 | -8008K | -8048K |
| 9 | -8009K | -8049K |
| 10 | -8010K | -8050K |
| 11 | -8011K | -8051K |
| 12 | -8012K | -8052K |
| 13 | -8013K | -8053K |

Safety Brogues

Metal free. Polyurethane sole with smooth shiny action leather upper. 200J composite toecap. Composite midsole. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

S3
SRC

| Size | Order Code TFF-963 |
|------|-----------------------|
| 6 | -1826K |
| 7 | -1827K |
| 8 | -1828K |
| 9 | -1829K |
| 10 | -1830K |
| 11 | -1831K |
| 12 | -1832K |
| 13 | -1833K |



S1P Footwear Selection

TUFFSAFE Welled Boots

Goodyear welted sole with full grain black nubuck leather upper. 200J steel toecap. Steel midsole. High quality full length footbed for increased comfort.
EN ISO 20345: 2011

| Size | Order Code TFF-963 | | |
|------|--------------------|--------|--------|
| | Honey | Black | Brown |
| 6 | -8616K | -8536K | -8576K |
| 7 | -8617K | -8537K | -8577K |
| 8 | -8618K | -8538K | -8578K |
| 9 | -8619K | -8539K | -8579K |
| 10 | -8620K | -8540K | -8580K |
| 11 | -8621K | -8541K | -8581K |
| 12 | -8622K | -8542K | -8582K |
| 13 | -8623K | -8543K | -8583K |



SITESAFE Rigger Boots

Polyurethane sole with tan Apollo leather upper. 200J steel toecap. Steel midsole. Full length foot bed. Fur lined.
EN ISO 20345: 2011



| Size | Order Code |
|------|------------|
| | SSF-963 |
| 3 | -7503K |
| 4 | -7504K |
| 5 | -7505K |
| 6 | -7506K |
| 7 | -7507K |
| 8 | -7508K |
| 9 | -7509K |
| 10 | -7510K |
| 11 | -7511K |
| 12 | -7512K |
| 13 | -7513K |

Trucker Boots

Polyurethane sole with black smooth action leather upper. 200J steel toecap. Steel midsole. Full length footbed.
EN ISO 20345: 2011



| Size | Order Code |
|------|------------|
| | SSF-963 |
| 3 | -8303K |
| 4 | -8304K |
| 5 | -8305K |
| 6 | -8306K |
| 7 | -8307K |
| 8 | -8308K |
| 9 | -8309K |
| 10 | -8310K |
| 11 | -8311K |
| 12 | -8312K |
| 13 | -8313K |

S1P SRC

SITESAFE Chukka Boots

Polyurethane sole with black Barton leather upper. 200J steel toecap. Steel midsole. Full length footbed.
EN ISO 20345: 2011



| Size | Order Code |
|------|------------|
| | SSF-963 |
| 3 | -1003K |
| 4 | -1004K |
| 5 | -1005K |
| 6 | -1006K |
| 7 | -1007K |
| 8 | -1008K |
| 9 | -1009K |
| 10 | -1010K |
| 11 | -1011K |
| 12 | -1012K |
| 13 | -1013K |

Hiker Boots

Polyurethane sole with black suede leather upper. 200J composite or steel toecap. Full length footbed.
EN ISO 20345: 2011

- Composite**
- Metal free
 - 200J composite toecap
 - Composite midsole



| Size | Order Code |
|------|-------------------|
| | SSF-963 Composite |
| 3 | -4003K |
| 4 | -4004K |
| 5 | -4005K |
| 6 | -4006K |
| 7 | -4007K |
| 8 | -4008K |
| 9 | -4009K |
| 10 | -4010K |
| 11 | -4011K |
| 12 | -4012K |
| 13 | -4013K |

S1P SRC

Safety Trainers

Polyurethane sole with black suede leather upper.
EN ISO 20345: 2011

- Composite**
- Metal free
 - 200J composite toecap
 - Composite midsole

- Metal**
- 200J steel toecap
 - Steel midsole



| Size | Order Code | |
|------|-------------------|---------------|
| | SSF-963 Composite | SSF-963 Metal |
| 3 | -8163K | -8103K |
| 4 | -8164K | -8104K |
| 5 | -8165K | -8105K |
| 6 | -8166K | -8106K |
| 7 | -8167K | -8107K |
| 8 | -8168K | -8108K |
| 9 | -8169K | -8109K |
| 10 | -8170K | -8110K |
| 11 | -8171K | -8111K |
| 12 | -8172K | -8112K |
| 13 | -8173K | -8113K |

S1P SRC

Four Eyelet Shoes

Polyurethane sole with black Barton leather upper. 200J steel toecap. Steel midsole. Full length foot bed.
EN ISO 20345: 2011



| Size | Order Code |
|------|------------|
| | SSF-963 |
| 3 | -7803K |
| 4 | -7804K |
| 5 | -7805K |
| 6 | -7806K |
| 7 | -7807K |
| 8 | -7808K |
| 9 | -7809K |
| 10 | -7810K |
| 11 | -7811K |
| 12 | -7812K |
| 13 | -7813K |

S1P SRC

TUFFSAFE Safety Boots

BBH 04 Nubuck Hiker
Honey. Cemented construction, lightweight rubber sole. Heat resistant to 200°C. 200 joules toe protection.
EN ISO 20345: 2011

SB
SRA



| Size | Order Code |
|------|----------------|
| | TFF-963 |
| 6 | -0320D |
| 7 | -0321E |
| 8 | -0322F |
| 9 | -0323G |
| 10 | -0324H |
| 11 | -0325J |
| 12 | -0326K |

SITESAFE Safety Wellingtons

Black. Energy absorbing heel. Tough construction.
EN ISO 20345: 2004/A1 2007

S5
SRC
WR

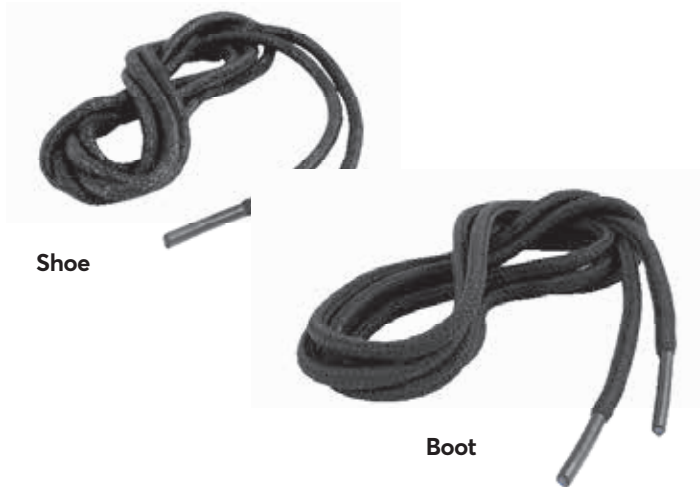


| Size | Order Code |
|------|----------------|
| | SSF-963 |
| 3 | -2003K |
| 4 | -2004K |
| 5 | -2005K |
| 6 | -2006K |
| 7 | -2007K |
| 8 | -2008K |
| 9 | -2009K |
| 10 | -2010K |
| 11 | -2011K |
| 12 | -2012K |

TUFFSAFE

Laces

Pair of laces with sealed ends.
• Colour: Black
• Material: Polyester



Shoe

Boot

| Lace Type | Order Code |
|-----------|----------------|
| | TFF-963 |
| Shoe | -9000K |
| Boot | -9001K |

Insoles

FB1

Cushioned insole absorbs impacts increasing wearer's comfort.



| Size | Order Code |
|------|----------------|
| | TFF-963 |
| 3 | -3503K |
| 4 | -3504K |
| 5 | -3505K |
| 6 | -3506K |
| 7 | -3507K |
| 8 | -3508K |
| 9 | -3509K |
| 10 | -3510K |
| 11 | -3511K |
| 12 | -3512K |
| 13 | -3513K |

Ingress Protection (IP) Ratings

Ingress Protection (IP) Ratings

Ingress Protection (IP) ratings are developed by the **European Committee for Electro Technical Standardization (CENELEC)** (described IEC/EN 60529), specify the environmental protection an enclosure provides. In order to comply with stringent requirements for **CE Marking**, machine makers today are fitting their machines with parts that are certified according to **EU (European Union)** and international standards.

The IP rating normally has two (or three) numbers:

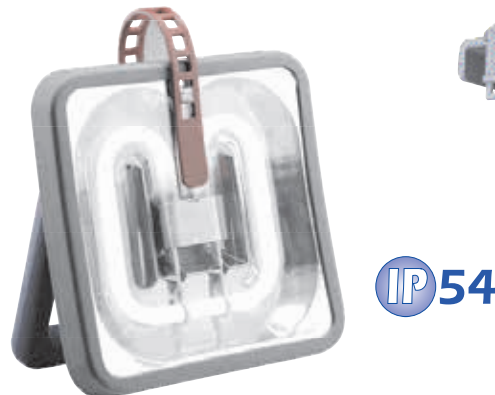
- IP First Number** - Protection from solid objects or materials
- IP Second Number** - Protection from liquids
- IP Third Number** - Protection against mechanical impacts (commonly omitted)

Example - IP Rating



5 describes the level of protection from solid objects and **4** describes the level of protection from liquids.

| 1 | 2 | 3 |
|--|---|--|
| <p>Protection against solid objects</p> <ul style="list-style-type: none"> 0 No protection. 1 Protected against solid objects up to 50mm, e.g. accidental touch by hands. 2 Protected against solid objects up to 12mm, e.g. fingers. 3 Protected against solid objects over 2.5mm (tools and wires). 4 Protected against solid objects over 1mm (tools, wire, and small wires). 5 Protected against dust limited ingress (no harmful deposit). 6 Totally protected against dust. | <p>Protection against liquids</p> <ul style="list-style-type: none"> 0 No protection. 1 Protection against vertically falling drops of water e.g. condensation. 2 Protection against direct sprays of water up to 15° from the vertical. 3 Protected against direct sprays of water up to 60° from the vertical. 4 Protection against water sprayed from all directions ° limited ingress permitted. 5 Protected against low pressure jets of water from all directions ° limited ingress. 6 Protected against low pressure jets of water, e.g. for use on ship decks - limited ingress permitted. 7 Protected against the effect of immersion between 15cm and 1m. 8 Protects against long periods of immersion under pressure. | <p>Protection against mechanical impacts (commonly omitted)</p> <ul style="list-style-type: none"> 0 No protection. 1 Protects against impact of 0.225 joule (e.g. 150g weight falling from 15cm height). 2 Protected against impact of 0.375 joule (e.g. 250g weight falling from 15cm height). 3 Protected against impact of 0.5 joule (e.g. 250g weight falling from 20cm height). 4 Protected against impact of 2.0 joule (e.g. 500g weight falling from 40cm height). 5 Protected against impact of 6.0 joule (e.g. 1.5kg weight falling from 40cm height). 6 Protected against impact of 20.0 joule (e.g. 5kg weight falling from 40cm height). |



Conversions Fraction, Millimetre, Gauge, Inch

| CONVERSIONS | | | | CONVERSIONS | | | | CONVERSIONS | | | |
|-------------|------------|-------|--------|-------------|------------|-------|-------|-------------|------------|-------|--------|
| Fraction | Millimetre | Gauge | Inch | Fraction | Millimetre | Gauge | Inch | Fraction | Millimetre | Gauge | Inch |
| 30 | 0.118 | | 0.0470 | 4.50 | 1.172 | | 0.180 | 6.80 | 0.2677 | | 0.1780 |
| 32 | 0.127 | | 0.0430 | 4.72 | 1.200 | | 0.185 | 6.90 | 0.2717 | | 0.1819 |
| 34 | 0.135 | | 0.0431 | 4.95 | 1.250 | | 0.191 | 7.00 | 0.2770 | | 0.1875 |
| 35 | 0.138 | | 0.0465 | 5.15 | 1.300 | | 0.197 | 7.10 | 0.2825 | | 0.1938 |
| 36 | 0.145 | | 0.0469 | 5.35 | 1.350 | | 0.203 | 7.20 | 0.2880 | | 0.1970 |
| 38 | 0.150 | | 0.0472 | 5.55 | 1.400 | | 0.209 | 7.30 | 0.2935 | | 0.2000 |
| 39 | 0.156 | | 0.0511 | 5.75 | 1.450 | | 0.215 | 7.40 | 0.2990 | | 0.2031 |
| 40 | 0.157 | | 0.0512 | 5.95 | 1.500 | | 0.221 | 7.50 | 0.3045 | | 0.2062 |
| 40.6 | 0.160 | | 0.0520 | 6.15 | 1.550 | | 0.227 | 7.60 | 0.3100 | | 0.2093 |
| 42 | 0.165 | | 0.0521 | 6.35 | 1.600 | | 0.233 | 7.70 | 0.3155 | | 0.2124 |
| 44 | 0.170 | | 0.0531 | 6.55 | 1.650 | | 0.239 | 7.80 | 0.3210 | | 0.2155 |
| 45 | 0.177 | | 0.0550 | 6.75 | 1.700 | | 0.245 | 7.90 | 0.3265 | | 0.2186 |
| 45.7 | 0.177 | | 0.0551 | 6.95 | 1.750 | | 0.251 | 8.00 | 0.3320 | | 0.2217 |
| 48 | 0.180 | | 0.0591 | 7.15 | 1.800 | | 0.257 | 8.10 | 0.3375 | | 0.2248 |
| 50 | 0.197 | | 0.0591 | 7.35 | 1.850 | | 0.263 | 8.20 | 0.3430 | | 0.2279 |
| 50.8 | 0.200 | | 0.0595 | 7.55 | 1.900 | | 0.269 | 8.30 | 0.3485 | | 0.2310 |
| 52 | 0.205 | | 0.0625 | 7.75 | 1.950 | | 0.275 | 8.40 | 0.3540 | | 0.2341 |
| 53 | 0.210 | | 0.0625 | 7.95 | 2.000 | | 0.281 | 8.50 | 0.3595 | | 0.2372 |
| 55 | 0.217 | | 0.0630 | 8.15 | 2.050 | | 0.287 | 8.60 | 0.3650 | | 0.2403 |
| 57 | 0.225 | | 0.0635 | 8.35 | 2.100 | | 0.293 | 8.70 | 0.3705 | | 0.2434 |
| 58 | 0.228 | | 0.0669 | 8.55 | 2.150 | | 0.299 | 8.80 | 0.3760 | | 0.2465 |
| 60 | 0.236 | | 0.0670 | 8.75 | 2.200 | | 0.305 | 8.90 | 0.3815 | | 0.2496 |
| 61.0 | 0.240 | | 0.0670 | 8.95 | 2.250 | | 0.311 | 9.00 | 0.3870 | | 0.2527 |
| 62 | 0.244 | | 0.0689 | 9.15 | 2.300 | | 0.317 | 9.10 | 0.3925 | | 0.2558 |
| 63.5 | 0.250 | | 0.0700 | 9.35 | 2.350 | | 0.323 | 9.20 | 0.3980 | | 0.2589 |
| 65 | 0.256 | | 0.0728 | 9.55 | 2.400 | | 0.329 | 9.30 | 0.4035 | | 0.2620 |
| 66 | 0.258 | | 0.0728 | 9.75 | 2.450 | | 0.335 | 9.40 | 0.4090 | | 0.2651 |
| 68 | 0.268 | | 0.0748 | 9.95 | 2.500 | | 0.341 | 9.50 | 0.4145 | | 0.2682 |
| 68 | 0.270 | | 0.0748 | 10.15 | 2.550 | | 0.347 | 9.60 | 0.4200 | | 0.2713 |
| 70 | 0.276 | | 0.0760 | 10.35 | 2.600 | | 0.353 | 9.70 | 0.4255 | | 0.2744 |
| 72 | 0.283 | | 0.0768 | 10.55 | 2.650 | | 0.359 | 9.80 | 0.4310 | | 0.2775 |
| 74.2 | 0.292 | | 0.0781 | 10.75 | 2.700 | | 0.365 | 9.90 | 0.4365 | | 0.2806 |
| 75 | 0.295 | | 0.0789 | 10.95 | 2.750 | | 0.371 | 10.00 | 0.4420 | | 0.2837 |
| 78 | 0.307 | | 0.0807 | 11.15 | 2.800 | | 0.377 | 10.10 | 0.4475 | | 0.2868 |
| 78.7 | 0.310 | | 0.0810 | 11.35 | 2.850 | | 0.383 | 10.20 | 0.4530 | | 0.2899 |
| 79.4 | 0.312 | | 0.0810 | 11.55 | 2.900 | | 0.389 | 10.30 | 0.4585 | | 0.2930 |
| 81.3 | 0.320 | | 0.0820 | 11.75 | 2.950 | | 0.395 | 10.40 | 0.4640 | | 0.2961 |
| 82 | 0.323 | | 0.0846 | 11.95 | 3.000 | | 0.401 | 10.50 | 0.4695 | | 0.2992 |
| 83.8 | 0.333 | | 0.0846 | 12.15 | 3.050 | | 0.407 | 10.60 | 0.4750 | | 0.3023 |
| 85 | 0.335 | | 0.0866 | 12.35 | 3.100 | | 0.413 | 10.70 | 0.4805 | | 0.3054 |
| 88 | 0.346 | | 0.0886 | 12.55 | 3.150 | | 0.419 | 10.80 | 0.4860 | | 0.3085 |
| 88.9 | 0.350 | | 0.0886 | 12.75 | 3.200 | | 0.425 | 10.90 | 0.4915 | | 0.3116 |
| 90 | 0.354 | | 0.0906 | 12.95 | 3.250 | | 0.431 | 11.00 | 0.4970 | | 0.3147 |
| 91.4 | 0.360 | | 0.0906 | 13.15 | 3.300 | | 0.437 | 11.10 | 0.5025 | | 0.3178 |
| 92 | 0.362 | | 0.0925 | 13.35 | 3.350 | | 0.443 | 11.20 | 0.5080 | | 0.3209 |
| 94.0 | 0.370 | | 0.0935 | 13.55 | 3.400 | | 0.449 | 11.30 | 0.5135 | | 0.3240 |
| 95 | 0.373 | | 0.0945 | 13.75 | 3.450 | | 0.455 | 11.40 | 0.5190 | | 0.3271 |
| 96.5 | 0.380 | | 0.0945 | 13.95 | 3.500 | | 0.461 | 11.50 | 0.5245 | | 0.3302 |
| 98 | 0.386 | | 0.0965 | 14.15 | 3.550 | | 0.467 | 11.60 | 0.5300 | | 0.3333 |
| 99.1 | 0.390 | | 0.0965 | 14.35 | 3.600 | | 0.473 | 11.70 | 0.5355 | | 0.3364 |
| 100.4 | 0.396 | | 0.0984 | 14.55 | 3.650 | | 0.479 | 11.80 | 0.5410 | | 0.3395 |
| 101.6 | 0.400 | | 0.0984 | 14.75 | 3.700 | | 0.485 | 11.90 | 0.5465 | | 0.3426 |
| 104.1 | 0.410 | | 0.0995 | 14.95 | 3.750 | | 0.491 | 12.00 | 0.5520 | | 0.3457 |
| 105 | 0.415 | | 0.1004 | 15.15 | 3.800 | | 0.497 | 12.10 | 0.5575 | | 0.3488 |

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SWISS+TECH

| CONVERSIONS | | | | CONVERSIONS | | | |
|-------------|------------|-------|-------|-------------|------------|-------|-------|
| Fraction | Millimetre | Gauge | Inch | Fraction | Millimetre | Gauge | Inch |
| 2.578 | 65.18 | 38 | 1.015 | 4.50 | 1.172 | | 0.180 |
| 2.60 | 65.78 | 37 | 1.043 | 4.72 | 1.200 | | 0.185 |
| 2.65 | 66.78 | 36 | 1.063 | 4.95 | 1.250 | | 0.191 |
| 2.70 | 68.28 | 35 | 1.083 | 5.15 | 1.300 | | 0.197 |
| 2.705 | 69.78 | 34 | 1.103 | 5.35 | 1.350 | | 0.203 |
| 2.778 | 70.78 | 33 | 1.123 | 5.55 | 1.400 | | 0.209 |
| 2.794 | 71.78 | 32 | 1.143 | 5.75 | 1.450 | | 0.215 |
| 2.80 | 72.78 | 31 | 1.163 | 5.95 | 1.500 | | 0.221 |
| 2.819 | 73.78 | 30 | 1.183 | 6.15 | 1.550 | | 0.227 |
| 2.85 | 74.78 | 29 | 1.203 | 6.35 | 1.600 | | 0.233 |
| 2.870 | 75.78 | 28 | 1.223 | 6.55 | 1.650 | | 0.239 |
| 2.90 | 76.78 | 27 | 1.243 | 6.75 | 1.700 | | 0.245 |
| 2.946 | 77.78 | 26 | 1.263 | 6.95 | 1.750 | | 0.251 |
| 2.95 | 78.78 | 25 | 1.283 | 7.15 | 1.800 | | 0.257 |
| 2.95 | 79.78 | 24 | 1.303 | 7.35 | 1.850 | | 0.263 |
| 3.048 | 77.78 | 23 | 1.323 | 7.55 | 1.900 | | 0.269 |
| 3.10 | 78.78 | 22 | 1.343 | 7.75 | 1.950 | | 0.275 |
| 3.175 | 80.78 | 21 | 1.363 | 7.95 | 2.000 | | 0.281 |
| 3.20 | 81.78 | 20 | 1.383 | 8.15 | 2.050 | | 0.287 |
| 3.25 | 82.78 | 19 | 1.403 | 8.35 | 2.100 | | 0.293 |
| 3.264 | 83.78 | 18 | 1.423 | 8.55 | 2.150 | | 0.299 |
| 3.30 | 84.78 | 17 | 1.443 | 8.75 | 2.200 | | 0.305 |
| 3.40 | 85.78 | 16 | 1.463 | 8.95 | 2.250 | | 0.311 |
| 3.454 | 86.78 | 15 | 1.483 | 9.15 | 2.300 | | 0.317 |
| 3.50 | 87.78 | 14 | 1.503 | 9.35 | 2.350 | | 0.323 |
| 3.569 | 88.78 | 13 | 1.523 | 9.55 | 2.400 | | 0.329 |
| 3.572 | 89.78 | 12 | 1.543 | 9.75 | 2.450 | | 0.335 |
| 3.60 | 90.78 | 11 | 1.563 | 9.95 | 2.500 | | 0.341 |
| 3.658 | 91.78 | 10 | 1.583 | 10.15 | 2.550 | | 0.347 |
| 3.70 | 92.78 | 9 | 1.603 | 10.35 | 2.600 | | 0.353 |
| 3.734 | 93.78 | 8 | 1.623 | 10.55 | 2.650 | | 0.359 |
| 3.75 | 94.78 | 7 | 1.643 | 10.75 | 2.700 | | 0.365 |
| 3.797 | 95.78 | 6 | 1.663 | 10.95 | 2.750 | | 0.371 |
| 3.80 | 96.78 | 5 | 1.683 | 11.15 | 2.800 | | 0.377 |
| 3.861 | 97.78 | 4 | 1.703 | 11.35 | 2.850 | | 0.383 |
| 3.90 | 98.78 | 3 | 1.723 | 11.55 | 2.900 | | 0.389 |
| 3.912 | 99.78 | 2 | 1.743 | 11.75 | 2.950 | | 0.395 |
| 3.969 | 100.78 | 1 | 1.763 | 11.95 | 3.000 | | 0.401 |
| 3.988 | 101.78 | | 1.783 | 12.15 | 3.050 | | 0.407 |
| 4.00 | 102.78 | | 1.803 | 12.35 | 3.100 | | 0.413 |
| 4.039 | 103.78 | | 1.823 | 12.55 | 3.150 | | 0.419 |
| 4.089 | 104.78 | | 1.843 | 12.75 | 3.200 | | 0.425 |
| 4.10 | 105.78 | | 1.863 | 12.95 | 3.250 | | 0.431 |
| 4.20 | 106.78 | | 1.883 | 13.15 | 3.300 | | 0.437 |
| 4.216 | 107.78 | | 1.903 | 13.35 | 3.350 | | 0.443 |
| 4.25 | 108.78 | | 1.923 | 13.55 | 3.400 | | 0.449 |
| 4.30 | 109.78 | | 1.943 | 13.75 | 3.450 | | 0.455 |
| 4.305 | 110.78 | | 1.963 | 13.95 | 3.500 | | 0.461 |
| 4.366 | 111.78 | | 1.983 | 14.15 | 3.550 | | 0.467 |
| 4.394 | 112.78 | | 2.003 | 14.35 | 3.600 | | 0.473 |
| 4.40 | 113.78 | | 2.023 | 14.55 | 3.650 | | 0.479 |
| 4.496 | 114.78 | | 2.043 | 14.75 | 3.700 | | 0.485 |

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SWISS+TECH

| CONVERSIONS | | | | CONVERSIONS | | | |
|-------------|------------|-------|-------|-------------|------------|-------|--------|
| Fraction | Millimetre | Gauge | Inch | Fraction | Millimetre | Gauge | Inch |
| 6.80 | 171.78 | | 6.718 | 10.00 | 254.00 | | 10.000 |
| 6.90 | 174.78 | | 6.800 | 10.10 | 256.50 | | 10.102 |
| 7.00 | 177.78 | | 6.883 | 10.20 | 259.00 | | 10.204 |
| 7.036 | 178.78 | | 6.900 | 10.30 | 261.50 | | 10.306 |
| 7.10 | 180.78 | | 6.950 | 10.40 | 264.00 | | 10.408 |
| 7.144 | 181.78 | | 6.975 | 10.50 | 266.50 | | 10.510 |
| 7.20 | 183.78 | | 7.000 | 10.60 | 269.00 | | 10.612 |
| 7.25 | 185.78 | | 7.025 | 10.70 | 271.50 | | 10.714 |
| 7.30 | 187.78 | | 7.050 | 10.80 | 274.00 | | 10.816 |
| 7.366 | 189 | | | | | | |

Data Books

Engineers Reference Data Charts

Now with 38 pages of engineering data. Each page coated with an anti-glare matt lamination to protect against the dirt and grease encountered in workshop conditions.

Contents:

- **Basic forms of heat treatment**
Colour charts for tempering and for hardening & forging.
- **Material groups**
Colour coded machineability chart and hardness listing.
- **Tensile strength and hardness**
Shore hardness and equivalent tensile strengths and conversions included.
- **Lubricant selection**
Colour coded materials chart and dilution guidelines.
- **Hole and shaft tolerances**
H7-e8 tolerances for counterbores included.
- **Metric screw and hole sizes**
- **Thread notation**
Explains terminology used to define thread characteristics.
- **Standard thread forms;**
Sequenced logically, tapping and clearance sizes integrated into single chart and colour highlighted for quick reference. Includes special metric pitches & NPT, distinctions made between 'Rp' and 'G' series BSP. ISO 529 pitch form diagrams shown. Now also lists tapping and clearance drill sizes for fluteless tap.
- **Dimensions of common shank types**
Now includes screwed shank, Weldon, DIN Taper, BT Taper, ISO Taper in addition to Morse taper shank details.
- **Standards for engineering drawings**
Comprehensive listing including contemporary listings and illustrations.
- **Abbreviations used in engineering drawings**
- **Common CNC codes**
Comprehensive listing including contemporary listings.
- **Axis nomenclature for machine tools**
Newly added page explaining the use of letter addresses to define directional motion.
- **Trigonometry formulae**
Colour coded CAD produced illustrations for quick reference.
- **Sines and Cosines**
Calculated to six decimal places with colour



- coded axes for quick reference.
- **Tangents and Cotangents**
Calculated to six decimal places with colour coded axes for quick reference.
- **Co-ordinates for equally pitched holes**
Clear and easy to read CAD produced diagrams.
- **Bending allowances for malleable materials**
Listed as metric radius and thickness with nearest equivalent SWG given for guidance. Clear and easy to read CAD produced diagrams.
- **Cutting speed calculator**
Gives required RPM for known cutter diameters and cutting speeds.
- **Standard drill size conversions;**
No & letter sizes integrated into a single chart, standard sizes are highlighted in bold text, size range extended from 25.25mm up to 32.50mm. All inch-fractional sizes converted

FOURTH EDITION
Extended Content Version

"WIRO" BOUND

LAMINATED EDITION

Pocket Size
164 x 84mm



to mm equivalent as well as inch-decimal and Morse Taper shank sizes are indicated against drill diameter ranges.

- **Abbreviations and formulae**
Definitions of standard meanings with specific attention given to turning, milling and drilling. Comprehensive list of commonly used abbreviations.
- **Weight and measure systems, useful conversions and constants**
A comprehensive listing of contemporary and old systems, along with the necessary conversion formulae.

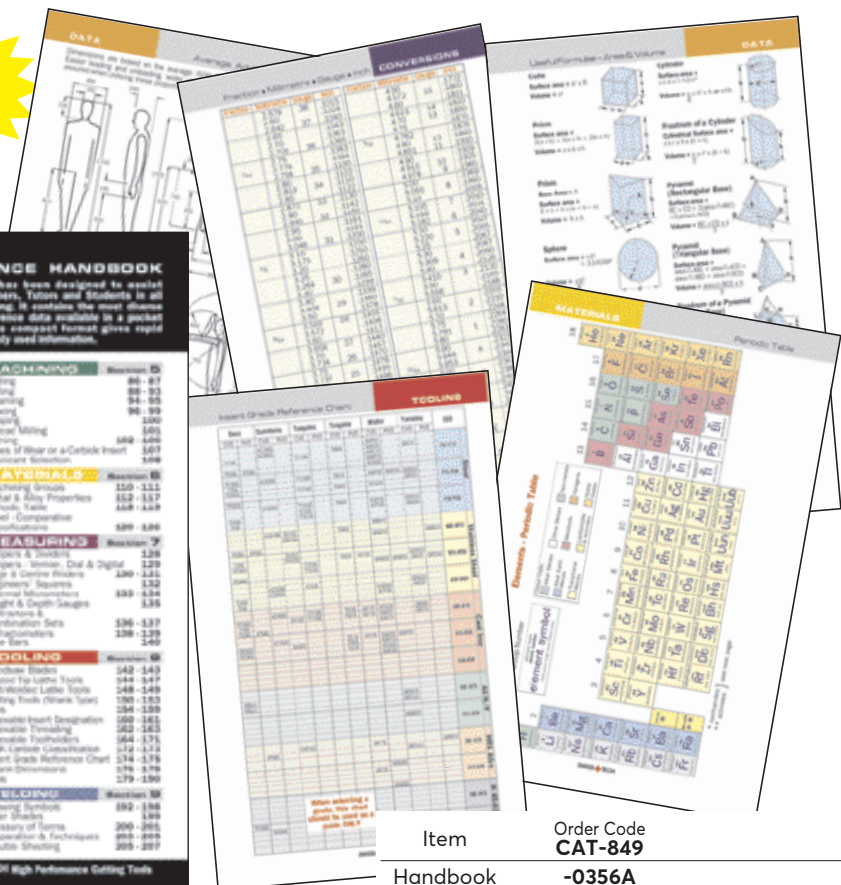
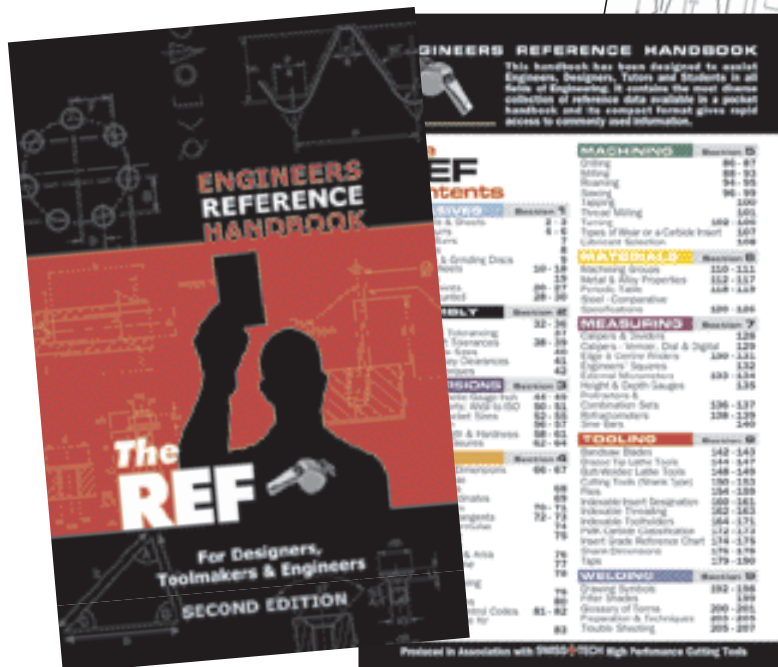
| Item | Order Code |
|-------------|---------------------------------|
| Data Charts | CAT-849 -2621A |

Engineers Reference Handbook

- A handy pocket-sized reference booklet of data charts and tables
- Suitable for the drawing office, toolroom or workshop
- 9 sections
- 209 pages

DESK EDITION

Pocket Size
148 x 100mm



| Item | Order Code |
|----------|---------------------------------|
| Handbook | CAT-849 -0356A |

50 Years of Keeping Industry Working
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Conversions - Spanner & Socket Sizes

| Head Size (Spanner Size, Across Flats) | Thread Size | | | |
|--|--|---|---|-------------------------------------|
| | German (BRD) metric according to DIN and ISO | France N F E 27-311 (69) 27-411 (69) | Sweden S M S 2164 - 1967 2175 - 1971 | Metric for DIN 6914 - 6915 |
| 4 | 2 | | 2 & 2.2 | |
| 4.5 | 2.3 | | | |
| 5 | 2.5 | | 2.5 | |
| 5.5 | 3 | 3 | 3 & 3.5 | |
| 6 | 3.5 | 3.5 | | |
| 7 | 4 | 4 | 4 & 4.5 | |
| 8 | 5 | 5 | 5 | |
| 9 | 5 Alt | | | |
| 10 | 6 | 6 | 6 | |
| 11 | 7 | 7 | 7 | |
| 12 | | | | |
| 13 | 8 | 8 | 8 | |
| 14 | 8 Alt | | | |
| 15 | 10 KFZ | | | |
| 16 | | | | |
| 17 | 10 | 10 | 10 | |
| 18 | | | | |
| 19 | 12 | 12 | 12 | |
| 20 | | | | |
| 21 | | | | |
| 22 | 14 | 14 | 14 | 12 |
| 23 | | | | |
| 24 | 16 | 16 | 16 | |
| 25 | | | | |
| 26 | | | | |
| 27 | 18 | 18 | 18 | 16 |
| 28 | | | | |
| 30 | 20 | 20 | 20 | 18 |
| 32 | 22 | 22 | 22 | 20 |
| 36 | 24 | 24 | 24 | 22 |
| 38 | | | | |
| 41 | 27 | 27 | 27 | 24 |
| 46 | 30 | 30 | 30 | 27 |
| 50 | 33 | 33 | 33 | |
| 55 | 36 | 36 | 36 | |
| 60 | 39 | 39 | 39 | |
| 65 | 42 | 42 | 42 | |
| 70 | 45 | 45 | 45 | |
| 75 | 48 | 48 | 48 | |
| 80 | 52 | 52 | 52 | |
| 85 | 56 | 56 | 56 | |
| 90 | 60 | 60 | 60 | |
| 95 | 64 | 64 | 64 | |
| 100 | 68 | 68 | 68 | |
| 105 | 72 | 72 | 72 | |
| 110 | 76 | 76 | 76 | |
| 115 | 80 | 80 | 80 | |
| 120 | 85 | 85 | 85 | |
| 125 | | | | |
| 130 | 90 | 90 | 90 | |
| 135 | 95 | 95 | 95 | |
| 140 | | | | |
| 145 | 100 | 100 | 100 | |
| 150 | 105 | 105 | 105 | |
| 155 | 110 | 110 | 110 | |
| 160 | | | | |
| 165 | 115 | 115 | 115 | |
| 170 | 120 | 120 | 120 | |

| Head Size (Spanner Size, Across Flats) | Thread Size | | | | | | | | | | |
|--|-------------|-----------------|------------------|-------------------|-----------------|----------------------|--------|-------|----------------|-----|--|
| | AF | Inch Decimal | mm Equivalent | Unified Standard | | ANSI B 18.2.1 - 1972 | | | | | |
| | | | | Nominal Series | Heavy Series | Nuts | | | Bolts & Screws | | |
| 5/32 | 0.1562 | 3.97 | | | | | | | | | |
| 3/16 | 0.1875 | 4.76 | | | | | | | | | |
| 7/32 | 0.2187 | 5.56 | | | | | | | | | |
| 1/4 | 0.2500 | 6.35 | | | | | | | | | |
| 9/32 | 0.2812 | 7.14 | | | | | No. 10 | | | | |
| 5/16 | 0.3125 | 7.94 | | | | | | | | | |
| 11/32 | 0.3438 | 8.73 | | | | | | | | | |
| 3/8 | 0.3750 | 9.52 | | | | | | | | | |
| 13/32 | 0.4062 | 10.32 | | | | | | | | | |
| 7/16 | 0.4375 | 11.11 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | |
| 1/2 | 0.5000 | 12.70 | 5/16 | 1/4 | 5/16 | | 5/16 | 1/4 | | | |
| 9/16 | 0.5625 | 14.29 | 3/8 | 5/16 | 3/8 | | 3/8 | 5/16 | 5/16 | | |
| 19/32 | 0.5938 | 15.08 | | | | | | | | | |
| 5/8 | 0.6250 | 15.88 | 7/16 | | 7/16 | | | | | 3/8 | |
| 11/16 | 0.6875 | 17.46 | | 3/8 | | | 7/16 | 3/8 | | | |
| 3/4 | 0.7500 | 19.05 | 1/2 | 7/16 | 1/2 | | 1/2 | 7/16 | 7/16 | | |
| 25/32 | 0.7812 | 19.84 | | | | | | | | | |
| 13/16 | 0.8125 | 20.64 | 9/16 | | 9/16 | | | | | 1/2 | |
| 7/8 | 0.8750 | 22.22 | | 1/2 | | 1/2 | 9/16 | 1/2 | | | |
| 15/16 | 0.9375 | 23.81 | 5/8 | | 5/8 | | 5/8 | 9/16 | | | |
| 1 | 1.0000 | 25.40 | | | | | | | | 5/8 | |
| 1 1/16 | 1.0625 | 26.99 | | | | | | | | | |
| 1 1/8 | 1.1250 | 28.58 | 3/4 | | 3/4 | | 3/4 | | | 3/4 | |
| 1 3/16 | 1.1875 | 30.16 | | | | | | | | | |
| 1 1/4 | 1.2500 | 31.75 | | 3/4 | | 3/4 | | 3/4 | | | |
| 1 5/16 | 1.3125 | 33.34 | 7/8 | | 7/8 | | 7/8 | | | | |
| 1 3/8 | 1.3750 | 34.92 | | | | | | | | | |
| 1 7/16 | 1.4375 | 36.51 | | 7/8 | | 7/8 | | 7/8 | | | |
| 1 1/2 | 1.5000 | 38.10 | 1 | | 1 | | 1 | | 1 | | |
| 1 5/8 | 1.6250 | 41.28 | | 1 | | 1 | | 1 | | | |
| 1 11/16 | 1.6875 | 42.86 | 1 1/8 | | 1 1/8 | | 1 1/8 | | 1 1/8 | | |
| 1 3/4 | 1.7500 | 44.45 | | | | | | | | | |
| 1 13/16 | 1.8125 | 46.04 | | 1 1/8 | | 1 1/8 | | 1 1/8 | | | |
| 1 7/8 | 1.8750 | 47.62 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | |
| 2 | 2.0000 | 50.80 | | 1 1/4 | | 1 1/4 | | 1 1/4 | | | |
| 2 1/16 | 2.0625 | 52.39 | 1 3/8 | | 1 3/8 | | 1 3/8 | | 1 3/8 | | |
| 2 3/16 | 2.1875 | 55.56 | | 1 3/8 | | 1 3/8 | | 1 3/8 | | | |
| 2 1/4 | 2.2500 | 57.15 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | |
| 2 3/8 | 2.3750 | 60.32 | | 1 1/2 | | 1 1/2 | | 1 1/2 | | | |
| 2 7/16 | 2.4375 | 61.91 | | | 1 5/8 | | | | | | |
| 2 9/16 | 2.5625 | 65.09 | | | 1 5/8 | | 1 5/8 | | 1 5/8 | | |
| 2 5/8 | 2.6250 | 66.68 | 1 3/4 | | 1 3/4 | | 1 3/4 | | 1 3/4 | | |
| 2 3/4 | 2.7500 | 69.85 | | 1 3/4 | | 1 3/4 | | 1 3/4 | | | |
| 2 13/16 | 2.8125 | 71.44 | | | 1 7/8 | | | | | | |
| 2 15/16 | 2.9375 | 74.61 | | | 1 7/8 | | 1 7/8 | | 1 7/8 | | |
| 3 | 3.0000 | 76.20 | 2 | | 2 | | | | | | |
| 3 1/8 | 3.1250 | 79.38 | | 2 | | 2 | | 2 | | | |
| 3 3/8 | 3.3750 | 85.72 | 2 1/4 | | 2 1/4 | | 2 1/4 | | 2 1/4 | | |
| 3 1/2 | 3.5000 | 88.90 | | 2 1/4 | | 2 1/4 | | 2 1/4 | | | |
| 3 3/4 | 3.7500 | 95.25 | 2 1/2 | | 2 1/2 | | | | | | |
| 3 7/8 | 3.8750 | 98.42 | | | | 2 1/2 | | 2 1/2 | | | |
| 4 1/8 | 4.1250 | 104.78 | 2 3/4 | | 2 3/4 | | | | | | |
| 4 1/4 | 4.2500 | 107.95 | | 2 3/4 | | 2 3/4 | | 2 3/4 | | | |
| 4 1/2 | 4.5000 | 114.30 | 3 | | 3 | | | | | | |
| 4 5/8 | 4.6250 | 117.48 | | 3 | | 3 | | 3 | | | |
| 4 7/8 | 4.8750 | 123.82 | | | 3 1/4 | | | | | | |
| 5 | 5.0000 | 127.00 | | | | | | | 3 1/4 | | |
| 5 1/4 | 5.2500 | 133.35 | | | 3 1/2 | | | | 3 1/2 | | |
| 5 3/8 | 5.3750 | 136.52 | | | | | | | 3 1/2 | | |
| 5 5/8 | 5.6250 | 142.88 | | | 3 3/4 | | | | 3 3/4 | | |
| 5 3/4 | 5.7500 | 146.05 | | | | | | | 3 3/4 | | |
| 6 | 6.0000 | 152.40 | | | 4 | | | | 4 | | |
| 6 1/8 | 6.1250 | 155.58 | | | | | | | 4 | | |

| Head Size (Across Flats) | Thread Size (Spanner Size) | | |
|-----------------------------|-------------------------------|------------------|----------------|
| | Inch Decimal | mm Equivalent | BA & BSW |
| 0.152 | 3.86 | 8BA | |
| 0.172 | 4.37 | 7BA | |
| 0.193 | 4.90 | 6BA | |
| 0.220 | 5.59 | 5BA | |
| 0.248 | 6.30 | 4BA | |
| 0.256 | 6.50 | 1 1/16W | |
| 0.282 | 7.16 | 3BA | |
| 0.297 | 7.54 | 3/32W | |
| 0.324 | 8.23 | 2BA | |
| 0.340 | 8.64 | 1 1/8W | (3/16) |
| 0.365 | 9.27 | 1BA | |
| 0.413 | 10.49 | OBA | (7/32) |
| 0.445 | 11.30 | 3/16W | 1/4 |
| 0.525 | 13.34 | 1/4W | 5/16 |
| 0.600 | 15.24 | 5/16W | 3/8 |
| 0.710 | 18.03 | 3/8W | 7/16 |
| 0.820 | 20.83 | 7/16W | 1/2 |
| 0.920 | 23.37 | 1/2W | 9/16 |
| 1.010 | 25.65 | 9/16W | 5/8 |
| 1.100 | 27.94 | 5/8W | (1 1/16) |
| 1.200 | 30.48 | 1 1/16W | 3/4 |
| 1.300 | 33.02 | 3/4W | 7/8 |
| 1.390 | 35.31 | 13/16W | (1 5/16) |
| 1.480 | 37.59 | 7/8W | 1 |
| 1.670 | 42.42 | 1W | 1 1/8 |
| 1.860 | 47.24 | 1 1/8W | 1 1/4 |
| 2.050 | 52.07 | 1 1/4W | 1 3/8 |
| 2.220 | 56.39 | 1 3/8W | 1 1/2 |
| 2.410 | 61.21 | 1 1/2W | 1 5/8 |
| 2.580 | 65.53 | 1 5/8W | 1 3/4 |
| 2.760 | 70.10 | 1 3/4W | 2 |
| 3.150 | 80.01 | 2W | 2 1/4 |
| 3.550 | 90.17 | | 2 1/2 |
| 3.890 | 98.81 | | 2 3/4 |
| 4.180 | 106.17 | | 3 |
| 4.530 | 115.06 | | 3 1/4 |
| 4.850 | 123.19 | | 3 1/2 |
| 5.180 | 131.57 | | 3 3/4 |
| 5.550 | 140.97 | | 4 |
| 6.380 | 162.05 | | 4 1/2 |

Ingress Protection (IP) Ratings

C = Centigrade
F = Fahrenheit
ft = Feet
g = Gram
gal = UK Gallon
hp = Horse Power

in = Inch
K = Kelvin
kg = Kilogram
km = Kilometre
Kw = Kilowatt
l = Litre

lb = Pound
mm = Millimetre
mtr = Metre
oz = Ounce
pt = UK Pint
yd = Yard

| To Convert From Imperial | To Metric | Multiply By |
|--------------------------|-----------------------|-------------------|
| °F | °C | °C=(°F -32) x 5/9 |
| °F | °K | °K=°C + 271.3 |
| ft | mtr | 0.3048 |
| ft ² | mtr ² | 0.092903 |
| ft ³ | mtr ³ | 0.028317 |
| ft-lbs | kg-m | 0.13826 |
| ft-tons | tonne-mtr | 0.3097 |
| gal | ltr | 4.54609 |
| gal/ft ² | ltr/m ² | 48.905 |
| grains/gal | gm/ltr | 0.01425 |
| hp | kw | 0.7457 |
| in | mm | 25.40 |
| in ² | cm ² | 6.4516 |
| in ² | mm ² | 645.16 |
| in ³ | cm ³ (cc) | 16.3871 |
| in-tons | kg-m | 25.8 |
| lb | kg | 0.45360 |
| lb/ft | kg/m | 1.488 |
| lb/ft ² | kg/m ² | 4.883 |
| lb/ft ³ | kg/m ³ | 15.020 |
| lb/gall | kg/ltr | 0.09983 |
| lb/in ² (PSI) | kg/cm ² | 0.07037 |
| lb/in ² (PSI) | kg/mm ² | 0.0007037 |
| lb/in ² (PSI) | kg/mtr ² | 703.7 |
| lb/mile | kg/km | 0.2818 |
| lb/yd | kg/m | 0.496 |
| lb/yd ³ | kg/m ³ | 0.5933 |
| nautical mile | km | 1.8532 |
| miles | km | 1.60934 |
| miles ² | km ² | 2.58999 |
| oz | g | 28.3495 |
| pt | ltr | 0.568261 |
| tons | tonnes (1000kg) | 1.01605 |
| tons/ft | kg/m | 3333.33 |
| tons/ft ² | tonnes/m ² | 10.936 |
| tons/in ² | kg/mm ² | 1.575 |
| tons/in ² | n/mm ² | 15.444 |
| tons/yd | kg/m | 1111.11 |
| tons/yd ² | tonnes/m ² | 1.215 |
| tons/yd ³ | tonnes/m ³ | 1.329 |
| yd | mtr | 0.9144 |
| yd ² | mtr ² | 0.836127 |
| yd ³ | mtr ³ | 0.764555 |

| To Convert From Metric | To Imperial | Multiply By |
|------------------------|--------------------------|----------------------|
| °C | °F | °F=(°Cx9/5)+32 |
| °K | °F | °F=(°K-271.3)x1.8+32 |
| cm ² | in ² | 0.155 |
| cm ³ (cc) | in ³ | 0.06102 |
| g | oz | 0.035274 |
| gm/ltr | grains/gal | 70.156 |
| kg | lb | 2.2046 |
| kg/cm ² | lb/in ² (PSI) | 14.223 |
| kg/km | lb/mile | 3.548 |
| kg/ltr | lb/gal | 10.022 |
| kg/m | lb/ft | 0.672 |
| kg/m | lb/yd | 2.016 |
| kg/m | tons/ft | 0.0003 |
| kg/m | tons/yd | 0.0009 |
| kg/m ² | lb/ft ² | 0.2048 |
| kg/m ³ | lb/ft ³ | 0.0624 |
| kg/m ³ | lb/yd ³ | 1.686 |
| kg/mm ² | lb/in ² (PSI) | 1421.06 |
| kg/mm ² | tons/in ² | 0.635 |
| kg/mtr ² | lb/in ² (PSI) | 0.00142 |
| kg-m | in-tons | 0.03875 |
| kg-m | ft-lbs | 7.233 |
| km | nautical miles | 0.5396 |
| km | miles | 0.62137 |
| km ² | miles ² | 0.38610 |
| kw | hp | 1.341 |
| ltr | gal | 0.21997 |
| ltr | pt | 1.75975 |
| ltr/m ² | gall/ft ² | 0.0204 |
| mm | in | 0.03937 |
| mm ² | in ² | 0.00155 |
| mtr | yd | 1.09361 |
| mtr | ft | 3.28084 |
| mtr ² | yd ² | 1.19599 |
| mtr ² | ft ² | 10.76391 |
| mtr ³ | yd ³ | 1.30795 |
| mtr ³ | ft ³ | 35.31467 |
| N/mm ² | tons/in ² | 0.06475 |
| tonne-m | ft-tons | 3.229 |
| tonnes (1000kg) | tons | 0.9842 |
| tonnes/m ² | tons/ft ² | 0.0914 |
| tonnes/m ² | tons/yd ² | 0.823 |
| tonnes/m ³ | tons/yd ³ | 0.752 |

| Metric Weight | Metric Surface Area |
|---------------|--------------------------|
| 10 Milligrams | 1 Centigram |
| 10 Centigrams | 1 Decigram |
| 10 Decigrams | 1 Gram |
| 10 Grams | 1 Decagram |
| 10 Decagram | 1 Hectogram |
| 10 Hectograms | 1 Kilogram |
| 10 Kilograms | 1 Myriagram |
| 1 sqmtr | 1 Centiares |
| 10 Centiares | 1 Deciare |
| 10 Deciares | 1 Are, (100 sq metres) |
| 10 Ares | 1 Dekare |
| 10 Dekares | 1 Hectare (10,000 sqmtr) |
| 100 Hectares | 1 Sq km |

| Metric Length | Metric Capacity |
|----------------|----------------------|
| 10 Millimetres | 1 Centimetre |
| 10 Centimetres | 1 Decimetre |
| 10 Decimetres | 1 Metre |
| 10 Meters | 1 Decametre |
| 10 Decametres | 1 Hectometre |
| 10 Hectometres | 1 Kilometre |
| 10 Kilometres | 1 Myriametre |
| 1 Metre | 1.094 Yards, 39.37in |
| 10 Millilitres | 1 Centilitre |
| 10 Centilitres | 1 Decilitre |
| 10 Decilitres | 1 Litre |
| 10 Litres | 1 Decalitre |
| 10 Decalitres | 1 Hectolitre |
| 10 Hectolitres | 1 Kilolitre |

| Apothecaries' Weight | Apothecaries' Fluid Measure |
|---------------------------------|-----------------------------|
| Used for Dispensing Drugs, etc. | |
| 20 Grains | 1 Scruple |
| 3 Scruples | 1 Dram |
| 8 Drams | 1 Ounce |
| 12 Ounces | 1 Pound |
| 60 Minims | 1 Dram |
| 8 Drams | 1 Ounce |
| 20 Ounces | 1 Pint |
| 8 Pints | 1 Gallon |

| Troy Weight | Diamonds and Pearls are weighed |
|---|---------------------------------|
| 24 Grains | 1 Pennyweight |
| 20 Pennyweight | 1 Ounce (480 Grains) |
| 12 Ounces | 1 Pound (5760 Grains) |
| by Carats, of 4 grains each (equal to 3.2 Troy grains). The Troy ounce is equal to 150 Diamond Carats. Gold, when pure, is 24 Carats fine; if it contains one part alloy it is said to be 23 Carats, and so on. | |

| Imperial Weight (Avoirdupois) | Imperial Surface Area |
|--|------------------------------|
| Used for General Merchandise | |
| 16 Drams | 1 Ounce (437½ Grains Troy) |
| 16 Ounces | 1 Pound (7000 Grains Troy) |
| 14 Pounds | 1 Stone |
| 28 Pounds | 1 Quarter |
| 100 Pounds | 1 Cental |
| 4 Quarters | 1 Hundredweight (112 Pounds) |
| 2000 Pounds | 1 Short Ton |
| 20 Hundredweight | 1 Ton (2240 Pounds) |
| Avoirdupois pounds are greater than Troy in the proportion of 17 to 14 approx; Troy ounces are greater than Avoirdupois in the proportion of 79 to 72 approx. | |
| 144 Square inches | 1 Square foot |
| 9 Square feet | 1 Square yard |
| 30¼ Square yards | 1 Square pole |
| 40 Square poles | 1 Rood |
| 4 Roods | 1 Acre |
| 640 Acres | 1 Square mile |
| 7.92 inches is equal to one hundredth of a "Gunter's Chain" (22 yards) which is (was) commonly used by surveyors. An "Engineer's link" is equal to 12 inches and a chain is therefore 33⅓ yards (100 feet) | |

| Imperial Cubic Capacity | |
|-------------------------|--------------------|
| 1728 Cubic Inches | 1 Cubic Foot |
| 27 Cubic Feet | 1 Cubic Yard |
| 5 Cubic Feet | 1 Barrel Bulk |
| 40 Cubic Feet | 1 Ton Shipping |
| 40 Cubic Feet | 1 Load Hard Timber |
| 50 Cubic Feet | 1 Load Foreign Fir |

| Imperial Length | Imperial Capacity |
|---|--------------------|
| Used for Liquids and Dry Goods | |
| 3 Barleycorns | 1 Inch |
| 3 Inches | 1 Palm |
| 4 Inches | 1 Hand |
| 7.92 Inches | 1 Link |
| 9 Inches | 1 Span |
| 12 Inches | 1 Foot |
| 18 Inches | 1 Cubit |
| 30 Inches | 1 Pace |
| 3 Feet | 1 Yard |
| 37.2 Inches | 1 Scottish Ell |
| 45 Inches | 1 English Ell |
| 5 Feet | 1 Geometrical Pace |
| 6 Feet | 1 Fathom |
| 5½ Yards | 1 Pole |
| 4 Poles | 1 Chain |
| 100 Links | 1 Chain |
| 10 Chains | 1 Furlongww |
| 220 Yards | 1 Furlong |
| 608 Feet | 1 Cable |
| 8 Furlongs | 1 Mile (land) |
| 10 Cables | 1 Nautical Mile |
| 1 Nautical Mile | 1.1515 land Miles |
| 1 Knot | 1 Nautical Mile |
| 3 Miles (land) | 1 League |
| 4 Gills | 1 Pint |
| 2 Pints | 1 Quart |
| 4 Quarts | 1 Gallon |
| 2 Gallons | 1 Peck |
| 4 Pecks | 1 Bushel |
| 8 Bushels | 1 Quarter |
| 5 Quarters | 1 Load |
| 36 Bushels | 1 Chaldron |
| A bushel of wheat on an average weighs 60 pounds; of barley, 47 pounds; of oats, 40 pounds. The gallon contains 10 pounds avoirdupois of distilled water. | |

| Decimal Capacity | | | |
|------------------|--------|---------|--------|
| Pints | Gallon | Cub.Ft. | Litres |
| 1 | 0.125 | 0.0200 | 0.568 |
| 8 | 1.000 | 0.1604 | 4.544 |
| 16 | 2.000 | 0.3208 | 9.082 |

