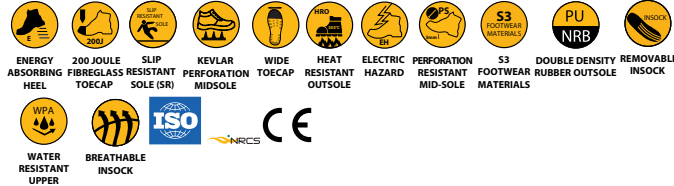


# Dromex



## BOLT SAFETY BOOT



DF-BOLT

### Description

The Dromex® Bolt, is a high performance, metal free, electrical hazard safety boot, that is designed to protect the users' feet from mechanical and electrical hazards all whilst offering optimum comfort for daily use.

These boots are suitable for use in the Construction, Utilities, Civils, Mining, and Oil and Gas industries as it is certified to withstand electrical risks of 20kV in accordance with the ASTM F2413-18 testing methods and exceeds the Eskom spec (34-232) of electrical resistance to 20kV for 60 seconds.

The construction of the premium full grain Ox leather which is soft, flexible, water resistant, chromium VI free and durable along with a fibreglass toecap and Kevlar midsole, aids in an ergonomic fit, reducing overall wearer fatigue on the user.

The chromium content in this footwear does not exceed 3,0 mg/kg.

This boot features the following

- An oil and slip resistant outsole, SR (Slip resistance on a ceramic tile floor with glycerine).
- An impact resistant fibreglass toecap rated up to 200 ± 4 Joules.
- A wider toe cap design providing extra room and comfort whilst preventing the toes and joints from rubbing onto the toe cap.
- A lightweight Kevlar midsole providing protection from penetrating objects and heat.
- A durable and lightweight PU (Polyurethane) and Nitrile Rubber outsole with an energy absorption heel for shock absorption and comfort.
- A contact heat resistant outsole rated at 300°C for 60 seconds.
- Bellows tongue prevents liquids and particulates from penetrating through the boots.
- A padded collar ensures comfort and ankle support.
- A removable and breathable PU and Memory Foam insock designed for superior comfort, ideal when standing for long hours.
- A leather pull tag for ease of donning (putting on) and doffing (removing) the boot.
- Cleated outsole, grips for easy walk on terrain.

Dromex® safety footwear is manufactured using the world class DESMA 24 station, Robotic machine through a direct injection molding process for the upper and midsole and vulcanization producing a high-quality outsole made from PU & Nitrile rubber technologies.

### Special Instructions

- These safety boots are designed to minimise the risk of injury from the specific hazards as identified by the marking on the footwear.
- All safety protective footwear should be thoroughly inspected before use to ensure no damage is present.
- Should any damage be present such as, distinct or deep cracks in the outsole, cracked or torn seams, material abrasions, tears on the upper parts, burns, upper has been separated from the outer sole or exposed toecap, the footwear must be replaced immediately.
- Should safety boots be damaged during use, suitable protection is not guaranteed and must be replaced immediately.
- PU (Polyurethane) outsole compositions are not resistant against water contact such as wet or muddy environments. (Only footwear made entirely of plastic or rubber is classified as water resistant.)
- As PU (Polyurethane) becomes brittle, wear the boot regularly to maintain flexibility and support the lifespan of this boot.
- None of the materials or processes used in the manufacture of these products are known to be harmful to the wearer.
- Safety footwear shall not adversely affect the health or hygiene of the user. Safety footwear shall be made of materials such as textiles, leather, rubbers or plastics that have been shown to be chemically suitable. The materials shall not, in the foreseeable conditions of normal use, release or degrade to release substances generally known to be toxic, carcinogenic, mutagenic, allergenic, toxic to reproduction or otherwise harmful.
- The manufacturer is examined under the system for ensuring quality of production by means of monitoring and inspection.
- These safety boots are designed to accommodate the basic safety requirements and standards for Personal Protective Equipment.
- Do not use these boots near a fire or open flame.
- The information contained herein is intended to assist the wearer in the selection of personal protective equipment.
- Actual conditions of use cannot be directly simulated in a test environment; therefore, it is the responsibility of the end user and not the manufacturer or supplier to determine the footwear's suitability for the intended use.
- It is important to note that footwear is subject to many different conditions encountered in everyday use and that it is impossible to make footwear resistant to slip in all conditions. Nevertheless, it is generally accepted that problems are minimized if the guideline coefficients of friction is achieved.
- If the footwear is cared for and worn in the correct working environment and stored in dry ventilated conditions, it should give a good wear life, without premature failure of the outsole, upper and upper stitching.

### Compliance & Conformity

Complies with the requirements of CE type examinations, EN ISO 20345:2022 that specifies basic and additional (optional) requirements for safety footwear used for general purpose. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour. It also specifies requirements for safety footwear equipped with customized insoles, customized safety footwear or individual manufactured customized safety footwear ASTM F2413-18 - Standard specification for performance requirements for protective (safety) toe cap footwear -Electrical Hazard Resistance Properties Intended to provide a secondary source of electric-shock resistance protection to the wearer against the hazards from an incidental contact with live electrical circuits or electrically energized conductors, parts or apparatus. Electrical hazard (EH) footwear is manufactured with non-conductive, electrical-shock-resistant soles and heels. The outsole is intended to provide a secondary source of electric-shock-resistance protection to the wearer against the hazards from an incidental contact with live electrical circuits or electrically energized conductors, parts or apparatus. It must be capable of withstanding the application of 18,000 volts at 50 hertz for one minute with no current or leakage current in excess of one milliampere under dry conditions.

NRCS Homologated approval number: NRCS/9002/217251/0603 as per SANS 20345:2023.

### Specifications

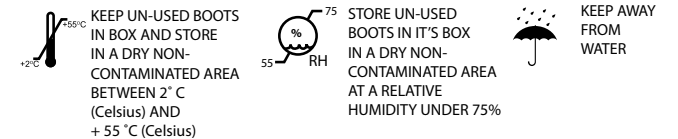
Style:	Class 1, non metal leather, ankle safety boot with lace fasteners, a fibre glass toe cap and kevlar midsole.
Materials	
Toe cap:	Fibreglass, impact resistant up to 200J ± 4J
Outsole:	PU (Polyurethane)/Nitrile Rubber
Upper:	Full grain flame proof OX leather
Insole:	Non-conductive non woven material
Full removable insole:	Polyurethane with memory foam
Lace:	Nylon

### Shelf life

- When stored in normal conditions (temperature, and relative humidity), footwear will perform as intended.
- As PU becomes brittle, wear the boots regularly to maintain flexibility and support the lifespan of this boot.
- Durability/expiration date:  
These boots are marked with the date of manufacture. Due to the large number of influencing factors, it is in general not possible to specify an expiry date. As a rough guideline, one can assume they will last for 5-8 years from the date of production. The expiration period in addition depends on the degree of wear, how much they are used, what they are used for, and external factors such as heat, cold, moisture, UV radiation or chemical substances. This information applies to new, packaged boots that are stored under conditions that are appropriate for the product, i.e., not subject to excessive temperature fluctuations or relative humidity.

### Packaging, Storage & Obsolescence

- Dromex® Bolt Safety boots are packed as individual pairs in a box.
- Store in a cool, dry place away from sunlight.
- If the footwear becomes damaged, it will not continue to give the specified level of protection and should therefore be immediately replaced.
- The packaging provided with the footwear at the point of sale is to ensure that the footwear is delivered to the customer in the same condition as when dispatched. The packaging box can also be used for storing the footwear when not in use.
- When the boxed footwear is in storage, do not place heavy objects on the box as this could damage to the box and the footwear.



### Sizes Available

3 - 13

UK SIZE	3	4	5	6	7	8	9	10	11	12	13
US SIZE	4	5	6	7	8	9	10	11	12	13	14
EU SIZE	37	38	39	40	41	42	43	44	45	46	47

### Cleaning & Maintenance

- All safety protective footwear should be thoroughly inspected before use to ensure no damage is present.
- After each use, wipe dirt and mud off boots with a damp (not wet) cloth and a mild soap.
- Allow boots to air dry at room temperature thoroughly between wearing's.
- Do not dry boots on or near a heat source, it may dry out and stiffen the leather.
- Dry your boots carefully when wet and avoid abrupt temperature changes.
- To help maintain the original look and feel of leather boots, regularly condition your leather boots, with either a boot, shoe oil or a leather dressing. Leave to dry overnight and wipe off excess product the following morning. Expect darkening of leather.
- Leather boots can be polished with a matching boot cream polish and also treated with water repellent. Use of the above products preserves and weatherproof for your boots.
- Safety boots should not be left in a contaminated condition if re-use is intended especially if potential hazards exist.
- Due to a wide variety of possible constructions and combinations with other materials we recommend to always consult your professional cleaning service to determine the best suitable cleaning method.

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Latest update: 22/10/2024

## Testing Before Use

- Before use, check the boots for apparent defects and signs of wear. If damaged replace immediately.
- Occasionally check the inside of the boot by hand for damage to the lining and for sharp edges at the toe box, either of which may cause injury. Ensure fastening systems are operable.
- It is essential to determine the correct footwear size through testing of the footwear.
- Do not wear footwear worn by another person as footwear adapts to the wearers feet through frequent use.
- Always try on new footwear at midday or in the afternoon for the correct and best fit as feet normally swell during the day, especially if the users job entails standing.
- Walk in the new footwear to ensure it is comfortable and adapts to the users feet.
- Boots should have ample room (toes should be about 12.5mm from the front).
- Do not expect footwear to stretch with wear.
- Make allowances for extra socks or special arch supports when buying safety footwear and confirm with the manufacturer, if adding inserts affects your level of protection.
- Safety footwear should fit snugly around the heel and ankle when laced.
- Lace up boots fully during fitting to avoid any tripping hazards or damage.

## Donning & Doffing

- Ensure your feet and socks are completely dry before insertion into your boots.
- Use a clean pair of socks each day as this helps to prevent odour and other hygiene issues.
- Before putting your safety boot on, check that the position of the in-sock is in place within the boot.
- Make sure it doesn't shift from its position. If it does, simply adjust it to the correct position.
- Unfasten the laces on your boots.
- Carefully insert your foot into the boot using the pull tag as a support to push your foot in. Taking care not to shift or move the insock out of place. If the insock moves, remove your foot and reposition it as before.
- Move the foot forward into the toe cap area.
- Ensure the proper position: not too much forward as to push against the toe cap and not too far as to leave a large space.
- Tighten the laces as required. The boot should not feel too tight or loose.
- Test the fit and comfort of the boot. Comfortable safety boots are safer and will make the users experience more productive.
- If the boot feels too uncomfortable or is causing pain, do not wear it- or if it looks deformed and damaged.
- Unfasten the laces and pull your feet whilst holding the pull tag as a support.

## Warnings

- This footwear is an Electrical Hazard rated safety boot that is tested in accordance with the test method as set out within ASTM F2413-18. The EH identification is imprinted in the tongue of the safety boot
- These boots should be used in conjunction with other insulating equipment and additional precautions must be taken to reduce the risk of a worker becoming a path for hazardous electrical energy
- The Electrical Hazard insulating protection deteriorates rapidly and may be compromised in humid, damp and wet environments and with wear.
- Electrical Hazard (EH) Safety footwear is intended as secondary source protection equipment and not for live working.

## Marking

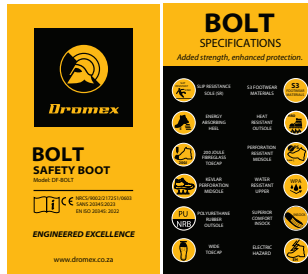
Marking on footwear denotes that the footwear is licensed according to the PPE Directive and is as follows:

### • Arcboot Drawing:



### • Swing Tag:

①



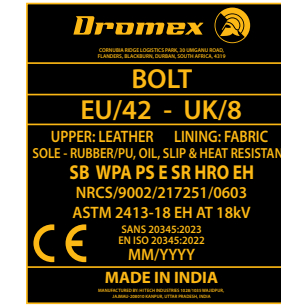
③



②



## • Inner Tongue



## • Insock:



## • Outsole Embossing:



## References:

ISO 20345: 2022

## Standard

This safety footwear complies with the Regulation (EU) 2016/425 of 9 March 2016 on personal protective equipment and meets the requirements of the European standard EN ISO 20345:2022.

Safety footwear is manufactured using both synthetic and natural materials which conforms to the relevant sections of EN ISO 20345:2022 for performance and quality.

Safety Footwear is designed to minimise the risk of injury which could be inflicted by the wearer during use. It is designed to be used in conjunction with a safe working environment and will not completely prevent injury if an accident occurs which exceeds the testing limits of EN ISO 20345:2022.

## Toe Caps

Dromex® Bolt protective boots are fitted with toecaps. Toecaps protects the wearer's toes against the risk of injury from falling objects and crushing when worn in industrial and commercial environments, where potential hazards occur with the following protection plus, where applicable, additional protection.

- Impact protection is 200 Joules.
- Compression protection provided is 15,000 Newton's.

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Latest update: 22/10/2024

## Additional Requirements for Special Applications

Additional protection may be provided and this is identified on the product by its marking as follows:

PROTECTION SYMBOL	EN ISO 20345:2022														Requirements
	SB	S1	S2	S3	S3L	S3S	S4	S5	S5L	S5S	S6	S7	S7L	S7S	
Closed heel area	O	X	X	X	X	X	X	X	X	X	X	X	X	X	Closed heel area
200J resistant toe cap	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Toe protection cap with a compressive force of 15 kN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
A Antistatic footwear	O	X	X	X	X	X	X	X	X	X	X	X	X	X	Electrical resistance >100kΩ and ≤1000MΩ
E Energy absorption of the heel	O	X	X	X	X	X	X	X	X	X	X	X	X	X	Absorbed energy ≤20J
FO Hydrocarbon resistant sole	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Volume increase 12%
WPA Water penetration and water absorption of the outer material	O	-	X	X	X	X	-	-	-	-	X	X	X	X	Absorption ≤ 30% Penetration ≤ 0.2g
P Puncture resistance (with a metallic, puncture-resistant midsole)	O	O	-	X	-	-	-	X	-	-	-	X	-	-	≤1100N
PL Puncture resistance (with a PL-type non-metallic, puncture-resistant midsole)	O	O	-	-	X	-	-	-	X	-	-	-	X	-	at 1100N no perforation
PS Puncture resistance (with a PS-type non-metallic, puncture-resistant midsole)	O	O	-	-	-	X	-	-	-	X	-	-	-	X	Average drilling force ≤ 1100N Single drilling ≤950N
CI Cold insulation	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Temperature drop after 30 min. at -17°C ≤ 10°C
HI Thermal insulation	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Temperature rise after 30 min. at 150°C ≤ 22°C
C Conductivity	O	-	-	-	-	-	-	-	-	-	-	-	-	-	Electrical resistance ≤100kΩ
HRO Heat resistance of the sole on contact	O	O	O	O	O	O	O	O	O	O	O	O	O	O	No signs of melting and/or fractures
M Protection of the metatarsal bone	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Residual height after impact: size 36 & below 37.0mm size 37 & 38 ≤ 38.0mm size 39 & 40 ≤ 39.0mm size 41 & 42 ≤ 40.0mm size 43 & 44 ≤ 40.5mm size 45 & above ≤ 41.0mm
CR Cut resistant upper	O	O	-	O	O	O	-	O	O	O	-	O	O	O	Shear Strength Index 2,5
SR Slip resistance (with glycerine-coated ceramic plate)	O	O	O	O	O	O	O	O	O	O	O	O	O	O	≤0.19 (forward sliding of the heel) ≤0.22 (backward sliding of the front part)
LG Footwear suitable for ladders	O	O	O	O	O	O	O	O	O	O	O	O	O	O	Abrasion resistance of the outside dimensions suitable for use on ladders
SC Abrasion resistance of the overcap	O	O	O	O	O	O	O	O	O	O	O	O	O	O	No through holes after 8000 abrasion cycles

**X – Denotes a mandatory requirement**

**O – Denotes an optional requirement**

It is important that the footwear selected for use must be suitable for the protection required and wear environment.

Where a wear environment is not known, it is very important that consultation is carried out between the seller and the purchaser to ensure, where possible, the correct footwear is provided.

## Slip Resistance Requirement

This footwear has been successfully tested against the EN ISO 20344:2021, clause 5.14 and the following symbol of SR applies.

Footwear resistant to slip on a ceramic tile floor with NaLS shall fulfil the requirements.

Test conditions	Coefficient of friction
Condition A (forward heel slip)	≥0.31

Test conditions	Coefficient of friction
Condition B (backward forepart slip)	≥0.36

## Marking categories of safety footwear

Category	Basic Requirements (Table 2 and Table 3)	Additional requirements
SB	Class I or II	
S1	Class I	as SB, plus Closed heel area Energy absorption of seat region Antistatic
S2	Class I	as S1, plus Water penetration and absorption
S3 (metal insert type P) or S3L (non-metal insert type PL) or S3S (non-metal insert type PS)	Class I	as S2, plus: Perforation resistance according to the type Cleated outsole

## Insock

This footwear is supplied with a removable in-sock. Please note that testing was carried out with the in-sock in place. This footwear shall only be used with the in-sock in place. The in-sock shall only be replaced by a comparable in-sock from the supplier to keep the protective properties of the footwear. Safety boots and work shoes, which need to be modified orthopaedically, may only be modified with insock and materials which are certified by the manufacturer. Please ask the manufacturer to check this possibility. For shoes and boots that comply with the DGUV Rule 112-191, the insoles can additionally be replaced by the tested orthopaedic insoles.

## Electrical Properties

- Partially conductive footwear

“Electrically partially conductive footwear should be used if it is necessary to minimize electrostatic charges in the shortest possible time, e.g. when handling explosives. Electrically partially conductive footwear should not be used, if the risk of shock from any electrical apparatus or live parts with AC or DC voltages has not been completely eliminated. In order to ensure that this footwear is partially conductive, it has been specified to have an upper limit of resistance of 100 kΩ in its new state. ISO 20345:2021(E)

During service, the electrical resistance of footwear made from conducting material can change significantly due to flexing and contamination, and it is necessary to ensure, that the product is capable of fulfilling its designed function of dissipating electrostatic charges during its entire life. Where necessary, it is therefore recommended, that the user establish an in-house test for electrical resistance and use it at regular intervals. This test and those mentioned below should be a routine part of the accident prevention program at the workplace.

If the footwear is worn in conditions where the soling material becomes contaminated with substances that can increase the electrical resistance of the footwear, wearers should always check the electrical properties of their footwear before entering a hazard area. It is recommended to use an electrical dissipative socks.

Where partially conductive footwear is in use, the resistance of the flooring should be such that it does not invalidate the protection provided by the footwear. In use, no insulating elements should be introduced between the inner sole of the footwear and the foot of the wearer. If an insert (i.e. insocks, socks) is put between the inner sole and the foot the combination footwear/insert should be checked for its electrical properties.”

## Antistatic footwear

Antistatic footwear should be used if it is necessary to minimize electrostatic build-up by dissipating electrostatic charges, thus avoiding the risk of spark ignition of, for example, flammable substances and vapours, and if the risk of electric shock from mains voltage

equipment cannot be completely eliminated from the workplace. Antistatic footwear introduces a resistance between the foot and ground but may not offer complete protection. Antistatic footwear is not suitable for work on live electrical installations. It should be noted, however, that antistatic footwear cannot guarantee adequate protection against electric shock from a static discharge as it only introduces a resistance between foot and floor. If the risk of static discharge electric shock, has not been completely eliminated, additional measures to avoid this risk are essential. Such measures, as well as the additional tests mentioned below, should be a routine part of the accident prevention programme at the workplace.

Antistatic footwear will not provide protection against electric shock from AC or DC voltages. If the risk of being exposed to any AC or DC voltage exists, then electrical insulating footwear shall be used to protect from against serious injury.

The electrical resistance of antistatic footwear can be changed significantly by flexing, contamination or moisture. This footwear might not perform its intended function if worn in wet conditions.

Class I footwear can absorb moisture and can become conductive if worn for prolonged periods in moist and wet conditions. Class II footwear is resistant to moist and wet conditions and should be used if the risk of exposure exists.

If the footwear is worn in conditions where the soling material becomes contaminated, wearers should always check the antistatic properties of the footwear before entering a hazard area.

Where antistatic footwear is in use, the resistance of the flooring should be such that it does not invalidate the protection provided by the footwear.”

It is recommended to use an antistatic sock.

“It is, therefore, necessary to ensure, that the combination of the footwear, its wearers and their environment is capable to fulfil the designed function of dissipating electrostatic charges, and of giving some protection during its entire life. Thus, it is recommended, that the user establish an in-house test for electrical resistance, which is carried out at regular and frequent intervals.”

## Perforation resistance

Additional information shall be given regarding perforation resistance: “The perforation resistance of this footwear has been measured in the laboratory using standardized nails and forces. Nails of smaller diameter and higher static or dynamic loads will increase the risk of perforation occurring.

In such circumstances, additional preventative measures should be considered. Three generic types of perforation resistant inserts are currently available in PPE footwear. These are metal types and those from non-metal materials, which shall be chosen on basis of a job-related risk assessment. All types give protection against perforation risks, but each has different additional advantages or disadvantages including the following:

- Metal (e.g. S1PS, S3):** Is less affected by the shape of the sharp object/hazard (i.e. diameter, geometry, sharpness) but due to shoemaking techniques may not cover the entire lower area of the foot.
- Non-metal (PS or PL or category e.g. S1PS, S3L):** May be lighter, more flexible and provide greater coverage area, but the perforation resistance may vary more depending on the shape of the sharp object/hazard (i.e. diameter, geometry, sharpness). Two types in terms of the protection afforded are available. Type PS may offer more appropriate protection from smaller diameter objects than type PL.

## Warranty & Returns

Returns and warranties are assessed on an individual basis. Our returns and warranty policy is available upon request.

## Disposal

All industrial waste should be disposed of correctly according to local regulations and good disposal practice. Please consider recycling.

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