Dromex

28 CAL ARC ERGOS INTEC HELMET

ARC ERGOS 28

Description

The Dromex BSD ErgoS Intec Power is a helmet with an integrated visor intended to protect the head against injuries caused by falling objects, projected droplets of molten metal, electric shock and electric arc hazards.

The electric shock hazard is classified as class 0 (1000 V) EN 50365:2002 and class E (20 kV) ANSI/ISEA Z89.1:2014, offering protection from the flow of electric current through the head.

The integrated face shield protects the user against short-circuit electric arc, impact of particles with medium energy, UV radiation and the risk of projected solid objects and liquids. It is not suitable for working with chainsaws or grinding machines.

The ErgoS Intec helmet and visor features the following:

- Ergonomically designed for all day work.
- An integrated helmet with visor and chin guard.
- The helmet is equipped with an adjustment system (increment every 1mm) which enables a user to change its length depending on the circumference of the head at the range between 53cm and 63cm and also enables adjustment of wearing height.
- A retractable face shield which easily retracts back into the helmet and ready to be used at a moment's notice.
- A rear ratchet hand wheel in the helmet liner for easy adjustment and custom fitting of the helmet on the head.
- The visor has colour reproduction of more than 93% and an outstanding service life.
- The visor has a permanent anti-fog coating.

Suitable for use by electricians, it is recommended in particular as personal protection equipment to be used during work on live equipment, work at heights and work on electrical connections.

Special Instructions

- In the event of an impact, fall, appearance of cracks or perforations, the hard hat must be disposed of and replaced immediately.
- Do not modify or remove any of the original helmet components.
- This electrically insulating helmet cannot be used as the only personal protective equipment during live work.
- Depending on the risk assessment involved, it is necessary to use additional protective equipment in addition to the helmet.
- The manufacturer accepts no responsibility in the event of any modifications of the equipment performed without its permission and in the event of any additions or replacement of accessories that have not been approved by the manufacturer or do not constitute a part of the original hard hat and not adapted to live work.
- Do not apply paint, varnishes, etc. to the hard hat or visor of face shield.
- Do not stick self-adhesive labels on the helmet or face shield without the consent of the manufacturer.
- Do not use solvents, detergents and abrasives to clean the helmet or face shield.
- The helmet must not be thrown, dropped or used as a support.
- Before starting work, check that the electrical limits for helmets correspond to the voltage rating and category or class of hazards that may occur during use.
- The face shield only protects against hazards when it is completely lowered during use.
- Do not use headgear, warmers, etc. under the helmet, which have not been tested in combination with the helmet. Using the wrong headgear can significantly reduce the level of protection.
- Use only balaclavas recommended by the manufacturer with the helmet.
- Keep the face shield, in particular the transparent visor, clean.
- None of the materials used in the manufacture of the face shield are known to adversely affect user hygiene or health.
- Susceptible individuals may experience an allergic reaction to those parts of the face shield that encounter with the wearer's skin. If this is the case, leave the hazard area, remove the face shield and seek doctor's advice.
- The helmets should not be used in situations where the voltage or risk is higher than the specified voltage on the helmet and visor.
- Follow procedures of live work as required by the organization.
- The additional weight of the helmet visor combination, which is worn over a longer period of time by the wearer, can contribute to faster fatigue of the head and neck muscles.
- Keep all product packaging and protective films out of reach of children due to suffocation risk.

Specifications

Style: Insulated helmet with integrated retractable visor, chin protection and 4 point chin strap.

Materials Helmet:

- Shell: ABS (acrylonitrile butadiene styrene)
- Chin stap: Polypropylene
- Chin protector: Polyamide
- Head band and nape strap: Polyethylene

Materials Visor: Polycarbonate with anti-fog

- Visor thickness: 1.7mm
- Minimum robustness: Ø22mm steel ball @ 100±2N
- Colour rendering index: > 93%
- Resistance to ultraviolet radiation(oculars only): Luminous transmittance NA: 42%,symbol 2
- Resistance to corrosion: No corrosion (8 of EN168)
- Resistance to ignition: No Ignition (7 of EN168)
- High speed particles @ low energy impact: B - Ø6mm steel ball (0.86g) @ 120 (+3 -0) m/s
- VLT factor: VLT < 50% for class 2
- Optical Class:1 - Refractive power (S±0.06, A0.06
  - Δprismatic, BO 0.75, BI 0.75, V 0.25)
- Lateral vision: 180°
- Compatibility: Other Dromex PPE
- Other tests and approvals: 8 ~Short circuit electric arc N~ resistance to fogging ATPV~Protection against thermal hazards of electric arc, ATPV = 28 Cal

Packaging & Storage

Each ErgoS Intec helmet is packed in a re-usable protective bag, with supporting item information and sold individually.

When not in use or during transportation the helmet must be stored in the protective bag provided.
Protect the helmet against mechanical damage, scratching, compression, sunlight (UV), humidity, exhaust gases, etc.
During storage or transport, the face shield should be retracted inside the helmet.
Do not place the helmet in the direct vicinity of windows or car windows.
Keep the helmet away from any sources of heat.
The recommended storage temperature is 20±15°C.

Compliance & Conformity

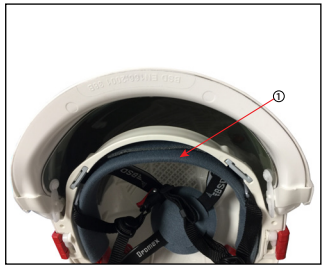
- EN 166:2001, Personal eye protection, specifications.
- EN 397:2012 + A1:2012, Industrial safety helmets.
- EN 50365:2002, Electrically insulating helmets for use on low voltage installations.
- DIN EN 170:2002, Personal eye protection. Ultraviolet filters. Transmission requirements and recommended use.
- GS-ET-29:2011-05, Supplementary requirements for the testing and certification of face shields for electrical works.
- ASTM F2178-17b, Standard test method for determining the arc rating and standard specification for eye and face protective products (in the field of protection against thermal hazards, ATPV).

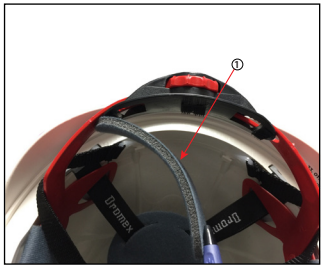
Cleaning & Maintenance

If the helmet or face shield becomes dirty or contaminated, particularly their external surfaces, they should be thoroughly cleaned in accordance with the manufacturer's recommendations as follows below:

Helmet:

- The hard hat and face shield should be cleaned after each use and be cleaned only with soap and water.
- Do not use any solvents, detergents and abrasives for cleaning.
- The sweatbands must be regularly cleaned and can be removed as follows:
  - The sweatbands are fixed to the main strap – front sweatband (1) and the back strap – back sweatband (2) using Velcro fasteners.
  - To remove the sweatband, unfasten the six Velcro points, which fasten it around the headband.
  - Reinsert the back sweatband, fasten around the main strap and separate them from the regulator by gently pulling them.





Face shield:

- The face shield should be cleaned only with soap and water.
- After washing, dry the shield properly
- Use a microfiber cloth to clean the surface of shield visor.
- **CAUTION! The face shield can be damaged by certain aggressive chemical substances. Do not use any solvents or detergents and abrasives to clean the face shield.**

Putting on of the helmet

ADJUSTMENT

Before use, the helmet must be properly adjusted to provide effective protection. The user should adjust the hard hat to the circumference of the head, changing the wearing height and the length of the chin strap until the hard hat fits well and does not move or tilt.

HEAD CIRCUIT ADJUSTMENT

The helmet includes a ratchet mechanism to adjust to the circumference of the head with the precision of 1mm over a range of 53 to 63cm.
After putting the helmet on the head, adjust it to the head circumference by turning the knob of the headband (1) located on the back of the helmet (Fig.1). Turning to the left (2) allows you to loosen and turn to the right (3) to tighten the headband.

Fig. 1

ADJUSTMENT OF WEARING HEIGHT

The helmet has two adjustment positions for the wearing height (Fig.2).
After putting the helmet on the head, make sure that the cradle is properly adjusted to the height of the head. As standard, the attachment of the headband (1) is mounted in the low position (2).
In order to change the wearing height, move the attachment of the headband to the high position (3).

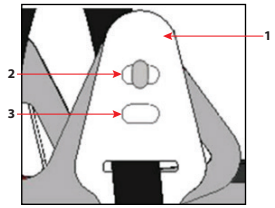


Fig. 2

ADJUSTMENT OF THE CHIN STRAP

The chinstrap (Fig. 3) has a length adjustment, individually for the left and right of the strap.
For each part, the length of the front (1) and rear (2) sections can be changed by sliding the strip through the splitter (3).

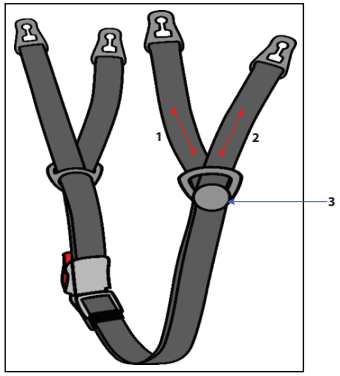


Fig. 3

FASTENING OF THE CHIN STRAP

To fasten the strap, insert the strap element (1) into the clip (2) (Fig.4).
To unfasten the strap, pull the clip (1) and release the strap element (2) from the clip. (Fig.5)

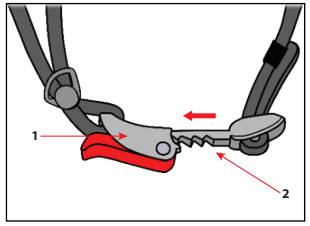


Fig. 4

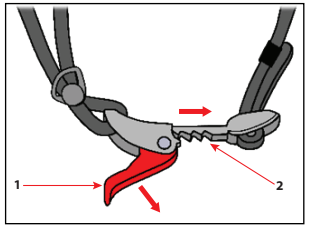


Fig. 5

LOWERING/RETRACTION OF THE FACE SHIELD

1. In order to lower the face shield (Fig.6), gently grasp it with both hands, with thumbs on the inside (1), pull it down (2), until it fully extends (3), and then turn the chin cover by pulling it towards you (4), until you hear a click of the hinges of the chin cover.

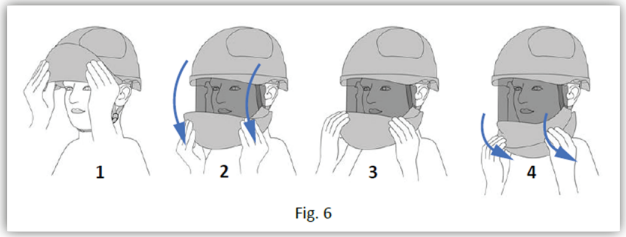


Fig. 6

2. In order to retract the face shield (Fig.7), first turn the chin cover outwards(5), until you hear a click of the chin cover hinges (6), and then slide the face shield into the helmet, by pushing it upward (7).
Caution! Incorrect (not according to the instruction) use/opening/closing of the face shield may cause its damage. Do not press on parts of the face shield too hard and do not lower/retract it too fast.

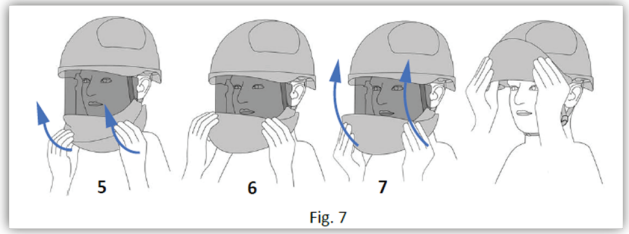


Fig. 7

CHECKS BEFORE EACH USE

The hard hat and the face shield must be checked each time before use.
During the visual inspection, the following items must be checked:

- Absence of visible defects on hard hat;
- Proper operation of the head circumference adjustment mechanism;
- Proper operation of the chin strap fastener;
- Absence of visible defects on the shield;
- Proper operation of the shield's mechanisms;
- The period of use or expiry date.

In the event of a mechanical damage of the shell (cracks, deep scratches, etc.) or chemical (discoloration, fading, etc.), improper operation of the head circumference adjustment or of the chin strap fastener and mechanical (cracks, deep scratches, perforations), or chemical (discoloration, tarnishing etc.) damage to the face shield or its malfunction and if there is any doubt as to the optimal level of protection, the helmet must not be used for work on live equipment and it should be immediately withdrawn from use.
If the expiry date has passed, the helmet must be disposed of.
If the helmet is wet, it must be completely dry before use.

Shelf life

Visors:
There is no time limitation on the visor which will not deteriorate over time.
In normal and standard use conditions, the visor ensures higher lifetime and protection than the helmet shell.

Helmet:
The lifetime of the helmet is 48 months from the date of manufacture.
The production date month/year (1) and the date of utilization month/year (2) are embedded on the back of the outer shell of the helmet as see below

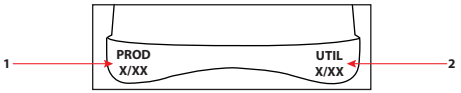


Fig. 8

Once your helmet has reached the “UTIL X / XX” date on the read of the helmet, the helmet with visor must be withdrawn from use and disposed of.

In the event of an impact, fall, the appearance of cracks or perforations, the hard hat must be disposed of.

In the event of cracks, scratches, perforations, discoloration or tarnishing, the face shield must be disposed of.

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Latest update: 19/02/2021

Marking

Marking stamped on the helmet shell:

- ⚠ - indicates a product intended for work on live equipment;
- Klasa 0 - Class 0 - electrical class for use up to rated mains voltage of 1,000V AC and 1,500V DC;
- EN 50365:2002 - applicable standard "Electrically insulating helmets for use on low voltage installations
- BSD - identification of the manufacturer
- ErgoS Intec Type name (hard hat)
- ABS - material of helmet shell
- 53 - 63cm, - range of head circumference adjustment
- 20 - 24, -inch range of head circumference adjustment
- EN 397:2012+A1:2012 applicable standard "Industrial safety helmets"
- -40°C - resistance to very low temperatures (down to -40°C);
- LD - resistance to lateral deformation
- MM -resistance to projected droplets of molten metal;
- 440Vac -electric insulation (according to the EN 397 standard);
- ANSI/ISEA Z89.1-2014 -applicable standard "American National Standard for Industrial Head Protection"
- Type I -protection against shocks at the top of the head, according to the standard ANSI/ISEA Z89.1
- Class E - electrical class, according to ANSI/ISEA Z89.1
- LT- lower temperature (according to the ANSI/ISEA Z89.1 standard)
- HT - higher temperature (according to the ANSI/ISEA Z89.1 standard)
- CE 1437- marking of conformity with the Directive 89/686/EEC and the number of the Notified Body leading supervision of quality control system
- LOT NO- XXX serial number
- www.bsd-dresden.de/ppe - website address where a declaration of conformity is available.

Marking stamped on the rear of helmet:

- PROD X/XX - production date (month/year)
- UTIL X/XX - expiry date (month/year)
- Dromex - Dromex branding and logo

Marking on visor:

- Dromex - Dromex branding and logo
- ⚠ - indicates the product is intended for work on live equipment (according to the RFU no 03-025/2012);
- 2C-2 - protection level of the UV filter (BSD ErgoS Power)
- BSD - identification of the manufacturer
- 1 - optical class
- B - resistance to medium-energy impacts
- N - resistance to fogging
- 166 - Reference to EN166, European standard of Personal Eye-Protection
- ATPV= 28 cal/cm2 Arc Thermal Performance Value according to ASTM F2178
- ANSI/ISEA Z87- applicable standard "American National Standard for Personal Eye and Face Protection Device"
- BSD - identification of the manufacturer
- Z87.1 - American National Standard for Personal Eye and Face Protection Device"
- + - Resistance to impact according to ANSI/ISEA Z87.1
- U6 - protection level of the UV according to ANSI/ISEA Z87.1
- BSD – identification of the manufacturer
- ErgoS Intec Power - Model of helmet
- Art.: Manufacturing product code
- Production date of visor (month/year) and lot number (830 832)

Marking stamped on the lower part of the shield - the chin protection:

- BSD - identification of the manufacturer;
- EN 166:2001 - applicable standard "Personal eye protection. Specifications";
- 3 protection - against projected liquid
- 8 protection - against electric arc
- B - resistance to medium-energy impacts.

Markings

Raised marking

BSD EN166:2001 38B

<- 75mm ->

Position:
- Helmet inner - Centre of chin protector

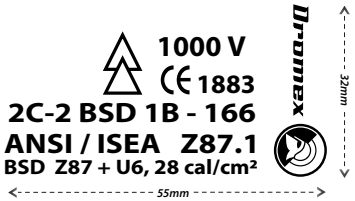
Raised marking

>ABS<

<- 13mm ->

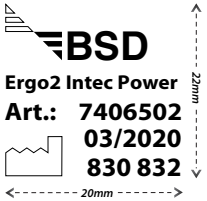
Position:
- Helmet inner - Centre back

Engraved marking



Position:
- Visor - Top left side of screen

Engraved marking

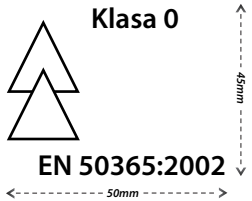


Position:
- Visor - Top right side of screen

Raised marking

Position:
- Helmet inner - Front

Raised marking



Position:
- Helmet inner - Back

Production engraved marking

PROD 2/20

Position:
- Helmet outer - Back left

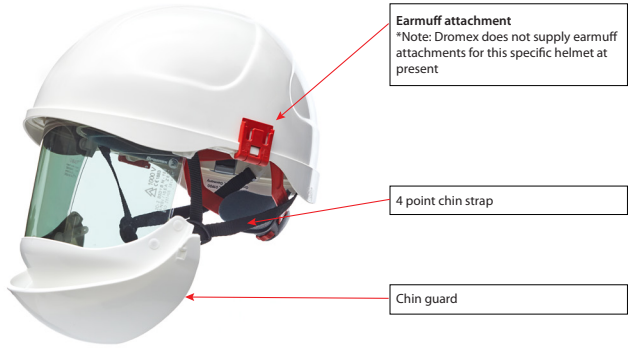
Utility engraved marking

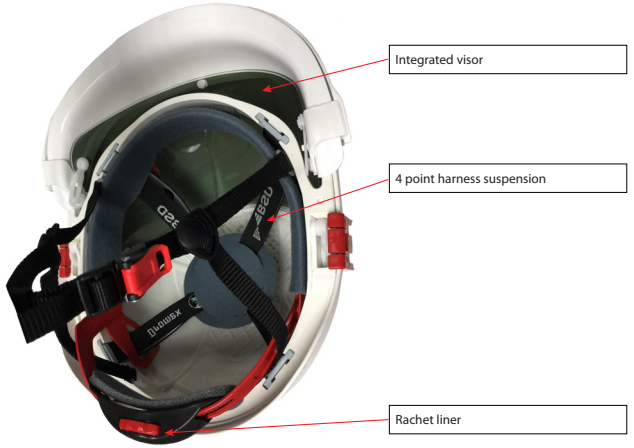
UTIL 2/24

Position:
- Helmet outer - Back right

Printed sticker

Position:
- Helmet outer - Centre back





Disposal

All industrial waste should be disposed of correctly per local regulations and good disposal practice. Helmet protective devices should be disposed of considering the hazardous substance they were used for.
Please consider recycling.