



IRS QLOCK System

User Manual

IRS QLOCK System

Integrated rescue sling system

Subject to technical changes

BRIEF DESCRIPTION

INTENDED USE

The IRS QLOCK system is part of personal protective equipment (PPE) of category III to prevent falls from heights.

The IRS QLOCK system serves as a simple securing device for one person for retention, rescuing and self-rescue according to FWDV 1 chap. 17 and 18.

The IRS QLOCK system replaces the fire service harness DIN 14927 in all functions according to FWDV 1. The following are important for ensuring that the IRS QLOCK system functions flawlessly:

- Observing all usage instructions in this User Manual (GAL).
- Compatibility of the fire service rescue jacket with the IRS QLOCK system.
- All parts stated in the User Manual must be carried and must be complete, integrated and operational.
- The person wearing the protective clothing must have been briefed about how to use the IRS QLOCK system safely in accordance with this User Manual.

The intended use is analogue to the use of the fire service holding harness and is also described in the FWDV 1 'Basic tasks – Extinguishing and assistance' chapters 17 and 18, in the BGI / GUV-I8651 'Fire service safety' chap. C 13.

This equipment may only be used by persons familiar with personal fall prevention equipment and the risks associated with working in areas where there is a risk of falling. In addition, the IRS QLOCK system can be used to rescue comrades quickly in emergency situations and emergencies connected to the use of respiratory apparatus.

Maximum user weight including clothing and equipment: 150 kg

All other uses are deemed improper. The company BORNACK will not be liable for any ensuing damages. The user bears the sole risk.

BRIEF DESCRIPTION

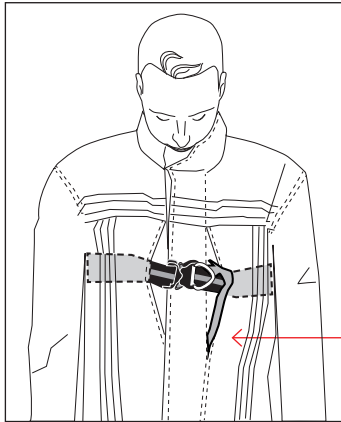
EQUIPMENT

- Rescue sling RS QLOCK for integration into the fire service rescue jacket, tested to EN 358 and EN 1498-A
- RS QLOCK made of non-flammable PES fabric
- QLOCK CLICK fastener with the corresponding certificates
 - Type IRSQo1: Permanently installed axle
 - Type IRSQo2: Replacement axle
- optional: self-locking sling FW/N FR, tested to EN 566 and EN 795-B.
- If necessary, next expert inspection

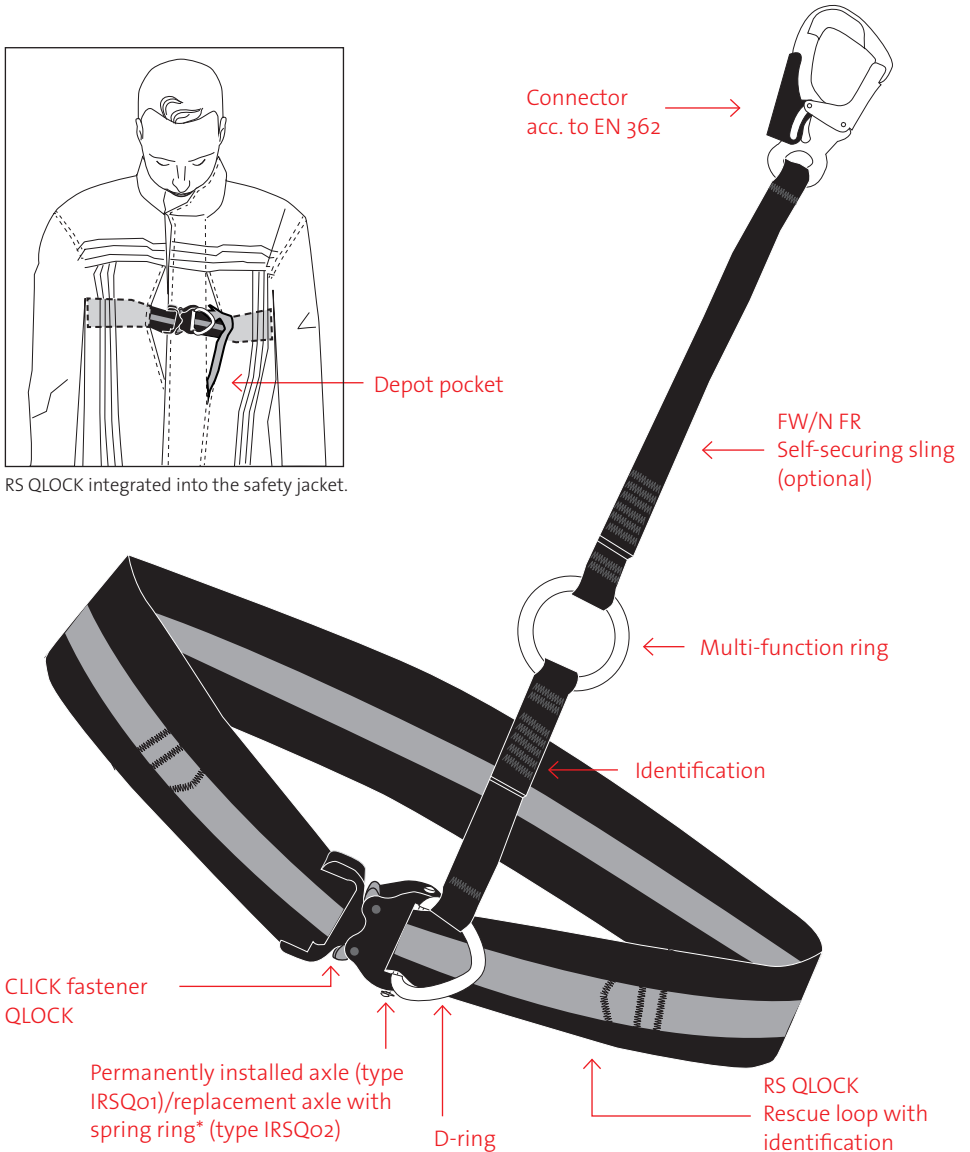
USE

- Self-rescue
- Rescue

IRS QLOCK SYSTEM – FIRE SERVICE RESCUE SLING SYSTEM



RS QLOCK integrated into the safety jacket.



* protected by patent rights

SAFETY INFORMATION



Always check every time before use!

- The IRS QLOCK system is no replacement for a full body harness according to EN 361.
- The IRS QLOCK system is not suitable for arresting a fall. If there is a risk of a fall or free fall, suitable equipment should be used, e.g. as described in the DIN 14800-17 Fall prevention equipment.
- As necessary, users of the IRS QLOCK system must be briefed about how to use the equipment safely before using it for the first time, however at least once a year.
- The sitting and wearing characteristics must guarantee the functions of the fire service protective clothing and the IRS QLOCK system.
- Intended use, similar to the use of the fire service harness, must be ensured. This is also stated in the FWDV 1 'Basic tasks – Extinguishing and assistance' chapters 17 and 18, in the BGI / GUV-I8651 'Fire service safety' chap. C 13.
- To use the IRS QLOCK system for these procedures, the complete system including the self-securing sling FW/N FR must be used.
- The personal protective equipment (PPE) may no longer be used in the case of even very minor faults.
- Faulty PPE components may only be tested or repaired in a workshop authorised by BORNACK.

VISUAL INSPECTION

- Check that the rope protection is complete. Are all components complete?
- All seams are undamaged. There are no visible signs of damage to the textile components nor can faults be felt with the hands.
- Fittings, rings, buckles, karabiners show no obvious signs of damage and are not bent. The fastener and lock of the connector acc. to EN 362 are functional.
- After it is used for the last time, the IRS QLOCK System is visually inspected and is made operational for its next use.
- Axle and spring ring in place. ((only for version with a spare axle*))

FUNCTION TEST

- Visually inspect the locked IRS QLOCK system and jerk down to check it functions correctly.

ANCHOR POINTS

- Attachment points must be adequately strong, according to EN 795, and should be positioned above the user. If in an emergency or for tactical reasons there is no EN 795-compliant attachment point available, a suitable adequately strong attachment option must be selected by means of a fast, local risk assessment.

CONNECTOR ACC. TO EN 362

- Risk of transverse loads by the connector acc. to EN 362!
- Observe the special User Manual of the connector according to EN 362.

* protected by patent rights

IRS QLOCK SYSTEM IN USE

ATTENTION:

The rescue loop only serves rescue purposes.

ATTENTION:

Always carry out a risk assessment before commencing work

- Are there sharp edges/rough surfaces?
- Is there a risk of falling / free fall?

PREPARATION

The integration of the IRS QLOCK system into the fire service jacket and the selection of the correct size must be agreed by BORNACK and the manufacturer of the safety clothing.

The sitting and wearing characteristics must guarantee the functions of the fire service protective clothing and the IRS QLOCK system.


The width of the clothing should be adjusted to the physical size of the wearer once the garment has been put on and closed, and should ensure that the wearer cannot slip out of the equipment when suspended, that the wearer can still move freely when crawling, bending or stretching, and that breathing is not impaired. The designation of the size (length) of the IRS QLOCK system must be matched to the size of the respective manufacturer.

A First, a suitable self-securing sling, e.g. the FW/N FR model with two connectors, is attached to an RS QLOCK without a permanently attached self-securing sling. To do this, hook one of the two connectors of the FW/N FR into the D-ring of the RS QLOCK.



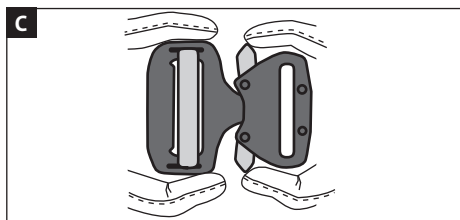
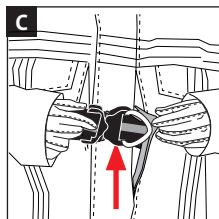
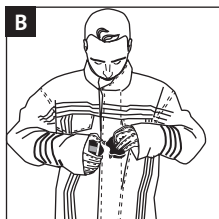
IRS QLOCK SYSTEM IN USE

INTEGRATION INTO THE SAFETY JACKET

Please note the instructions in the User Manual of the jacket manufacturer for correct integration of the IRS system into the safety jacket. 

OPEN / CLOSE

- B** When putting on the safety jacket, the rescue loop is closed immediately and guarantees the safe and immediate function.
- C** The rescue sling is closed with the QLOCK CLICK Fastener to form a ring. Using your thumbs and index fingers on both hands, slightly squeeze the buckle and exert pressure on the lock wings. If the CLICK fastener is under tension, it cannot be opened.



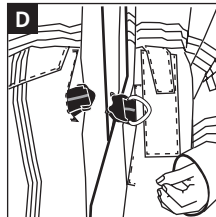
IRS QLOCK SYSTEM IN USE

WHEN USED OR DURING DRILLS

- The IRS QLOCK system is always 'closed and ready for operation', and stowed correctly. Please observe the User Manual of the manufacturer when stowing the jacket.
- If a risk is recognised that is likely to lead to the use of the panic function on the jacket's zip, the wearer of the safety garment must decide in collaboration with the supervisor about the priority of the safety goals based on a local risk assessment.

TAKING THE SAFETY JACKET OFF

- D** The QLOCK CLICK fastener is opened; the self-securing ring FW/N FR remains stowed in the pocket.



IRS QLOCK SYSTEM IN USE

RESTRAINT

E Create an anchor point using lanyards. Spar and rungs included. Hook the self-securing sling FW/N FR into the lanyard or attach with a connector acc. to EN 362 and a multifunction ring FW/N FR.

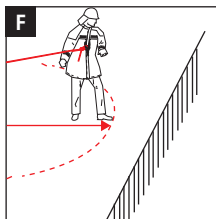
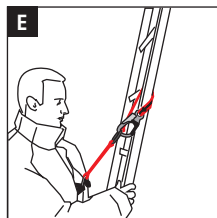
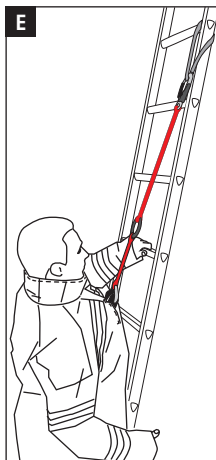
ATTENTION:



When attaching the BORNACK self-securing sling FW/N FR for holding, always ensure that the attachment point lies well above the point at which the rope is attached (QLOCK)! (fall factor $< 0,5$, fall height $< 0,3$ m)

RETENTION

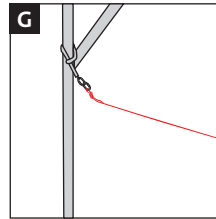
F The IRS QLOCK must be attached to an anchor point so that the fall edge is not reached. This prevents a fall.



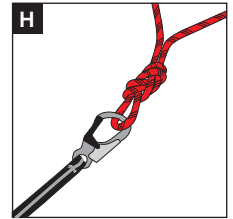
IRS QLOCK SYSTEM IN USE

RESCUING PERSONS

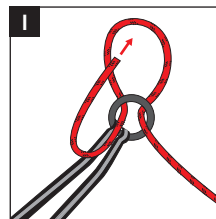
G Attach the fire service line to an adequately strong anchor point.



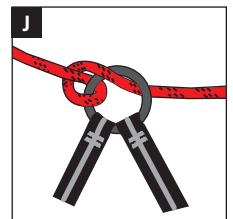
H Attach the fire service line with a figure of eight knot to the connector acc. to EN 362 as a retention system.



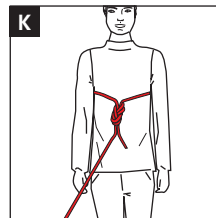
I Guide the fire service line through the multi-function ring by means of a half-mast knot. As shown above, feed the line with a lark's head knot through the steel ring, thread the linen bag through the lark's head knot.



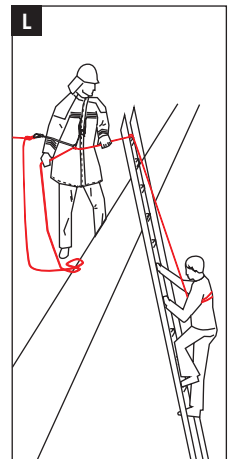
J Check function.



K Attach the fire service line to the person being rescued using a chest strap or rescue harness EN 1498.



L Lower the rescued person slowly. Easy control through the half-mast knot.



ATTENTION:

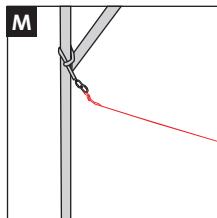


Steps should be taken to ensure that the person who is being rescued is not endangered by shifting of the rescue loop, contact with the attachment elements, e.g. by a connector that grazes the head of the person being rescued during an unplanned event such as a short fall.

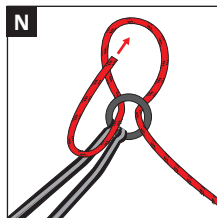
IRS QLOCK SYSTEM IN USE

SELF-RESCUE

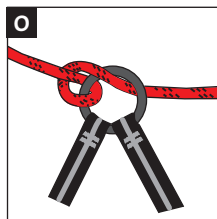
M Attach the fire service line to an adequately strong anchor point.



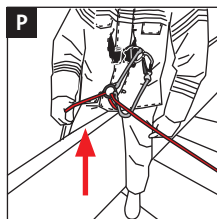
N Guide the fire service line through the multifunction ring by means of a half-mast knot. As shown above, feed the line with a lark's head knot through the multifunction ring, thread the linen bag through the lark's head knot.



O Guide the fire service line through the multifunction ring by means of a half-mast knot.



P Step up to the exit edge. When crossing e.g. straddling the edge (e.g. windows) ensure that the multifunction ring is already positioned behind the exit edge before the abseiling process starts.



ATTENTION:



Prevent edge loads.

Protect hands and arms. Do not clamp hands and arms below the rope.

Q Ensure that the rope is guided with one hand, avoid slack rope and jerking loads.

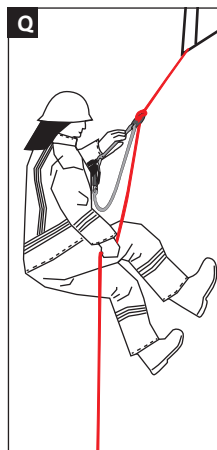


ATTENTION:

The IRS QLOCK system should only be used for self-rescue purposes in emergencies where there is a direct risk to life.

Self-rescue must be learned and trained in an independent securing system.

An independent securing system is e.g. a Top-Rope system with fall prevention equipment. acc. to DIN 14800-17.

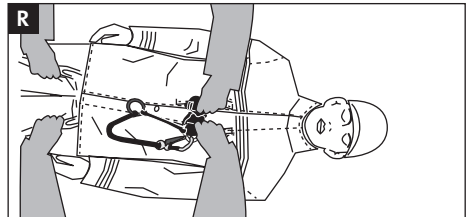


IRS QLOCK SYSTEM IN USE

IMMEDIATE RESCUE (CRASH RESCUE)

A colleague is dragged away by two fire service members.

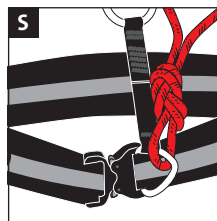
R Hold the casualty on the rescue sling with one hand. The casualty can now be pulled from the danger zone.



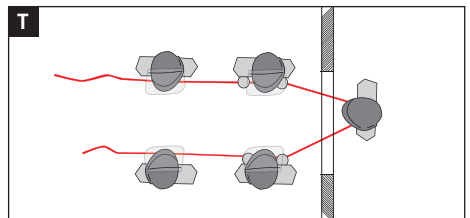
PULL UP OR LOWER

At least four fire service officers are required to lift or lower a casualty.

S Attach a figure of eight knot to the connector acc. to EN 362 of the self-securing sling FW/N FR.



T Position two fire service officers respectively at both ends of the fire service line. The casualty can now be lowered or lifted slowly.



COMBINATION

When combining this product with other parts, there is a risk of mutual impairment with respect to the function and safety. Compatibility must be assessed during the risk analysis. Only combine with personal protective equipment that bears a CE symbol. If you have any questions about compatibility or you require help with the risk analyses, feel free to contact BORNACK.

SAFETY REGULATIONS

There is a risk to life if these safety instructions are not observed.

- The personal protective equipment (PPE) may no longer be used even in the case of very minor faults.
- Damaged, fall-stressed, dubious personal protective equipment or safety devices must be immediately withdrawn and not used. The equipment may only be inspected by an expert and/or a workshop authorised in writing by BORNACK. This must be documented in the test card.
- Independent modifications or repairs are not allowed.
- Rope protection is part of the personal fall prevention equipment and should be assigned to a specific person.
- Only trained and experienced persons, or persons who are briefed and supervised accordingly may use PPE.
- Trained and experienced persons within the meaning of this User Manual must be familiar with the use of fall protection equipment, how to use the equipment correctly, application limits, potential dangers, how to avoid these dangers and should also know the rescue plan.
- In accordance with the accident prevention guidelines (UVV), the users of personal protective equipment against falls (Category III) must attend a theoretical training course and a practical training course. Make use of the training competence of the BORNACK training centres: info@bornack.de
- Before using for the first time, especially when the IRS QLOCK system is introduced to a fire service, BORNACK or another training organisation explicitly certified by BORNACK must train the multipliers / fire service officers of the respective fire service in depth.
- At least 8 lesson units are required for full briefing of the multipliers/fire service members.
- Clothing and shoes must be suitable for the task at hand and the weather conditions.
- Minimum protection equipment acc. to FWDV 1 chap. 2.1.
- Only use if fully fit and healthy.
- Health impairments can jeopardise the safety of the user when working at heights or depths.
- The attachment point for the rope protection must be adequately strong (EN 795) and positioned correctly. Select an anchor point overhead, if possible.
- If in an emergency or for tactical reasons there is no EN 795-compliant attachment point available, a suitable adequately strong attachment option must be selected by means of a fast, local risk assessment.
- This PPE is not tested for horizontal use.
- Edge loads always pose a risk.
- Select an anchor point that is as high as possible.
- Protect personal protective equipment during storing, use and transportation against the effects of heat (e.g. welding flames or sparks, burning cigarettes) and chemicals (e.g. acids, alkalis, oils, etc.) and mechanical effects (e.g. sharp edges).

SAFETY REGULATIONS

- Before commencing work, an emergency plan (rescue plan) for the respective work situation must be drafted by the responsible person stating how persons in rope equipment can be rescued from the hanging situation safely and reliably and how first aid can be administered. Free suspension in the IRS QLOCK system must be kept to a minimum (< 2.0 min). When suspended in the IRS system, it is possible that the respiratory and blood circulation systems can be impeded. There is a risk of suspension trauma.
- BORNACK can help you draw up tailor-made rescue plans and includes these in the necessary training courses.
- The local safety regulations and the standard accident prevention guidelines for the industry must be observed.
- Application temperature: -40 °C to +80 °C
- Safety regulations and tactical application information is also stated in the FWDV 1 'Basic tasks – Extinguishing and assistance' chapters 17 and 18, in the BGI / GUV-I8651 'Fire service safety' chap. C 13 and the GUV-C53 'Accident prevention regulation fire services'.

OTHER

APPROVAL:

Complies with the Regulation (EU) 2016/425 for PPE.

EU type testing (Module B) and production monitoring (Module C2) by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65, D-80339 München
CE0123

Quality management system certified to ISO 9001:2015.

Production monitoring by notified office in accordance with Category III.

SALES

If the goods are to be sold in countries that speak a different language, the dealer must ensure that the User Manual is supplied in the language of the designated country.

The respective translation must be authorised by BORNACK.

SERVICE

If you have any further questions about safe use of this rope protection system or other BORNACK services, such as

- Risk analysis
- Rescue plans
- Training courses
- Inspection by an expert

If you have any questions, please contact our e-mail hotline: info@bornack.de
We will be happy to help!

REGULAR INSPECTIONS

- Before and after it is used, the product must be checked for damage; also, steps must be taken to ensure that it is serviceable and that it functions correctly.
- At least once a year, an expert or the manufacturer must inspect the device according to DGUV Principle 305-002.
- The result must be documented in the test card or the device management system of the respective fire service.

MAINTENANCE

- Apply a small amount of oil on the joints so that the moving parts of the connector acc. to EN 362 and other devices run smoothly.
- Protective equipment that is well looked after will last longer!

CLEANING

- Dry damp personal protective equipment in the air, not on artificial heat sources. Dry metal components with cloths.
- If the personal protective equipment comes into contact with salt-water, keep it wet until it can be rinsed with plenty of distilled water.
- Wipe and clean soiled devices with a cloth, brush off or wash with lukewarm water and possibly a detergent for delicates, rinse with clean water. Other cleaning agents are not allowed!

OTHER

LIFE SPAN

The following recommendations are made for the use of the IRS QLOCK system:

Maximum usage period after being used for the first time: 10 years

In ideal storage conditions and annual inspections, the product may be stored for up to 3 more years before it is used for the first time without impacting on the stated maximum usage period. Every further year in storage reduces the final maximum allowed usage period by 1 year.

Metal parts are not subject to age-related life span deadlines. The expert makes a decision based on his technical expertise and the latest version of the standard.

Intensive use, extreme operating instructions, like sharp edges, chemical influences, contact with contaminated extinguishing water, extinguishing water additives, extinguishing gases, the impact of acidic or aggressive fumes, thermal damage due to the effect of heat, flames, melting damage caused by hot ashes can reduce the usage period and/or lead to immediate sorting. The company owner needs to take this into account in the workplace risk analysis.

The company owner must ensure compliance with the maximum usage period by documenting first-time use in the test card.

The test card at the end of this User Manual must be presented during the regular expert inspections and be completed by an expert.

For more details, please visit www.bornack.de.

STORAGE

- Dry wet PPE before storage.
- Store in a dry place away from direct sunlight.
- Do not store PPE near radiators. Permanent exposure to temperatures above +50 °C has a negative impact on the strength of the textile material and shortens the life span.
- Do not allow PPE to come into contact with aggressive substances (e.g. oils, grease, acids, chemicals etc.).

TRANSPORT

- Transport the IRS QLOCK integrated in the protective clothing.

MAINTENANCE INFORMATION

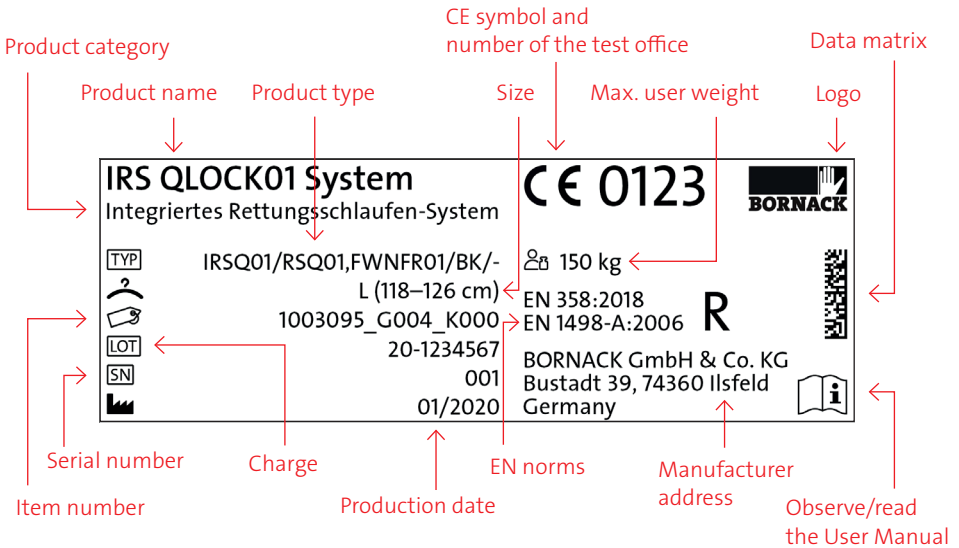
- Repairs may only be carried out by the manufacturer.
- Type IRSQo2: In case of wear, the FW/N FR can be replaced by an equipment technician if approved by BORNACK. Only original spare parts may be used.

OTHER

PRODUCT IDENTIFICATION

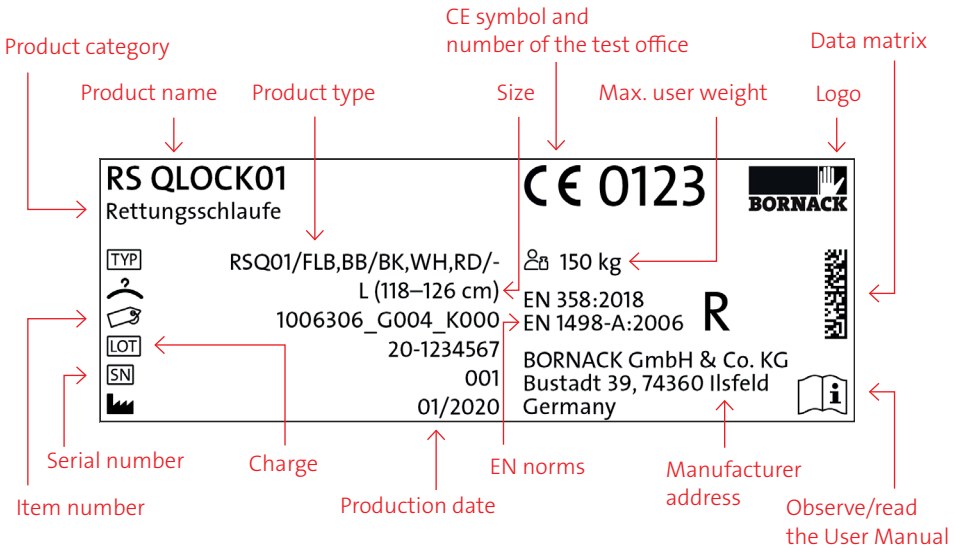
The following identification is on the product:

Identification rescue loop Type IRSQ:














OTHER

Identification rescue loop Type RSQ:



OTHER

Identification self-securing sling:

Product name	→	FW/N FR		←	Logo
Product category	→	Selbstsicherungsschlinge	BORNACK		
Product type	→	 FWNFR01/KAD,SLR/BK/-		←	Read the User Manual
Length	→	 78 cm			
Item number	→	 1003081			
Charge	→	 20-1234567		←	Data matrix
Serial number	→	 001			
Production date	→	 01/2020			
Maximum number of users	→	 1	 22 kN	←	Breaking load
Max. user weight	→	150 kg		←	CE symbol and number of the test office
EN norms	→	EN 566:2017 EN 795-B:2012	CE 0123		
Contact	→	BORNACK GmbH & Co. KG Bustadt 39, 74360 Ilsfeld/Germany www.bornack.de		←	Manufacturer address

EU DECLARATION OF CONFORMITY



EU Declaration of Conformity

The manufacturer or his authorised representative established within the EU

BORNACK GmbH & Co. KG
Bustadt 39
74360 Ilsfeld
Germany

hereby declares that the following personal protective equipment

Firefighter harness for integration into firefighter jacket, optionally with integrated self-securing sling
IRS QLOCK01 System / IRS QLOCK02 System / RS QLOCK01 / RS QLOCK02

- is in conformity with the relevant harmonisation legislation according to Annex V (Module B) of the Regulation (EU) 2016/425 on personal protective equipment according to Article 19 (category III PPE) and is examined to EN 358:2018 EN 1498:2006
- is identical to the PPE that is the object of the **EU type-examination certificate No. P5A 040506 0290 Rev. 00**

issued by

TÜV SÜD Product Service GmbH
Zertifizierstelle
Ridlerstraße 65
80339 München
Germany
CE 0123

- is subject to the assessment of conformity to type, based on internal production control plus supervised product checks according to Module C2 of the Regulation (EU) 2016/425 for personal protective equipment (category III PPE), monitored by the notified body

TÜV SÜD Product Service GmbH
Zertifizierstelle
Ridlerstraße 65
80339 München
Germany
CE 0123

10 August 2020

BORNACK GmbH & Co. KG



Ulrike Bornack
Managing Director

TEST CARD

FOR ANNUAL MONITORING

The test list must be completed in full by the expert during the annual inspection.

This test list does not claim to cover all test criteria and does not relieve the expert from his decision about the overall condition.

Type: _____

Production date: _____ / _____
RS QLOCK FW/N FR

Charges: _____ / _____
RS QLOCK FW/N FR

Serial no.: _____ / _____
RS QLOCK FW/N FR

Purchase date: _____

Date of first Use: _____

Maximum life span until: _____

	Date	Signature	Next inspection	Reason for inspection
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				
Year 6				
Year 7				
Year 8				
Year 9				
Year 10				

TEST CARD

FOR ANNUAL MONITORING

Please complete:

×

√

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
No deformation, cracks etc. on the multifunction ring?										
CLICK fastener QLOCK undamaged?										
Rescue loop RS undamaged (mechanical, thermal, chemical)?										
All seams undamaged?										
Correctly integrated into the protective clothing?										
Additional check for version with a spare axle*:										
Spring ring available?										
Axle in place?										
Axle secured with a spring ring?										
Connector acc. to EN 362 without damage?										
Self-securing sling undamaged (mechanical, thermal, chemical)?										

* protected by patent rights



FALLSTOP

Safety equipment for securing and rescuing at heights and depths

SAFEPOINT

Planning and assembly of stationary securing systems

BORNACK GmbH & Co. KG

Bustadt 39
74360 Ilsfeld
Germany

Tel + 49 (0) 70 62 / 26 90 0-0
Fax + 49 (0) 70 62 / 26 90 0-550
info@bornack.de
www.bornack.de

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Status: 06/2021 GAL Art.-No. 8000124_EN ebo/jba/anh

