



IRS System

User Manual

IRS

Fire service rescue sling system

Subject to technical changes

BRIEF DESCRIPTION

INTENDED USE

- The IRS fire service rescue sling system is part of personal protective equipment (PPE) of category III to prevent falls from heights.
- The IRS 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 replaces the fire service harness DIN 14927 in all functions according to FWDV 1. The following are important for ensuring that the overall IRS system functions flawlessly:
 - Observing all usage instructions in this User Manual (GAL).
 - Compatibility of the fire service rescue jacket with the IRS system.
 - All constituents 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 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 system can be used to rescue comrades quickly in emergency situations and emergencies connected to the use of respiratory apparatus.

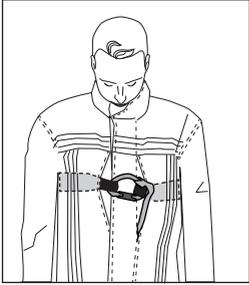
Maximum user weight including clothing and equipment: 150 kg

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

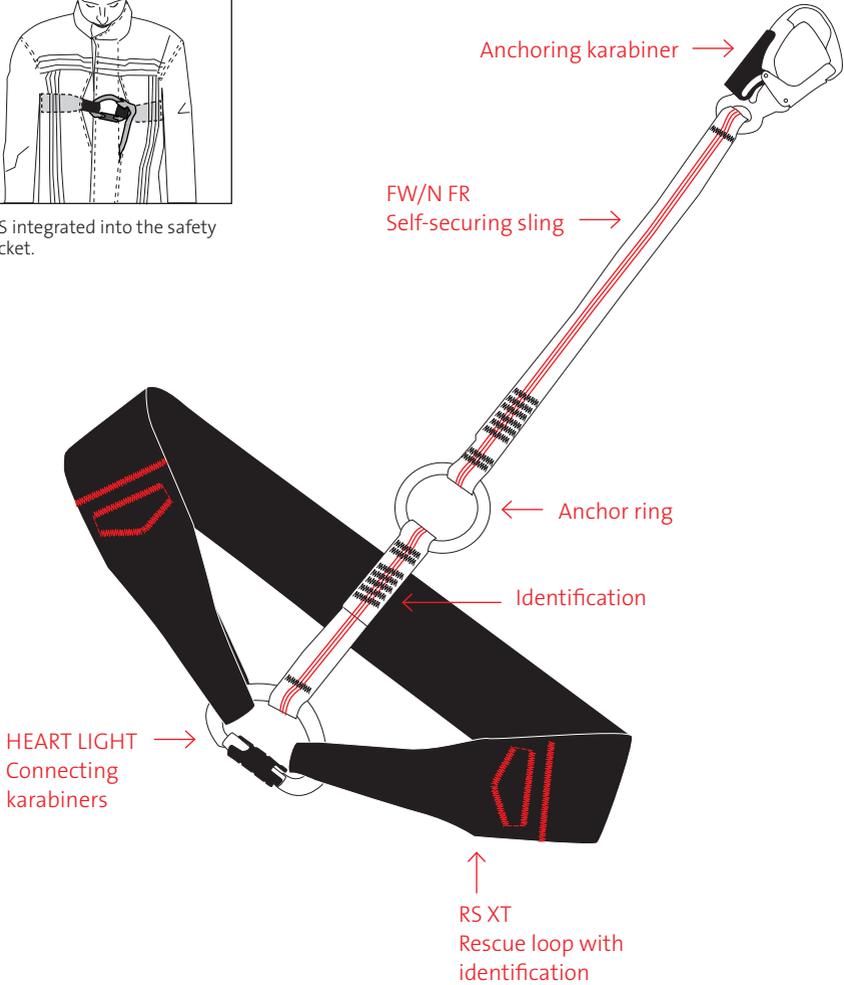
EQUIPMENT

- Rescue sling RS XT for integration into the fire service jacket. Tested to EN- 1498-A and EN-358.
- RS XT made of non-flammable PES fabric
- Special karabiner HEART LIGHT EN 362/ EN 12275
- Self-locking sling FW/N FR, tested to EN 566 and EN 795-B.
- If necessary, next expert inspection

IRS- FIRE SERVICE RESCUE SLING SYSTEM



IRS integrated into the safety jacket.



SAFETY INFORMATION



**Always check every time
before use!**

- The IRS system is no replacement for a full body harness according to DIN / EN 361.
- The IRS 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 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 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 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 signs of damage and are not bent. Karabiner fastener and its lock are fully functional.
- After it is used for the last time, the IRS System is visually inspected and is made operational for its next use.

FUNCTION TEST

- Visually inspect the locked IRS 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.

KARABINERS

ATTENTION:

Risk from karabiner shear force!

Observe/read the special User Manual for the karabiner!



IRS IN USE

PREPARATION

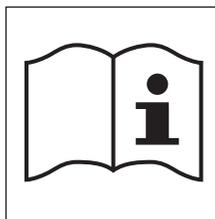
The integration of the IRS into the fire service jacket and the selection of the correct size must be agreed by BORNACK and the manufacturer of the safety clothing.

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

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 system must be matched to the size of the respective manufacturer.

FITTED 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.



IRS IN USE

CLOSING

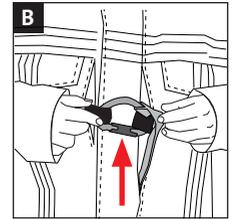
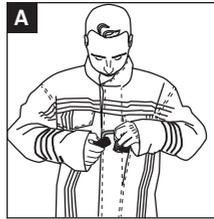
A When putting on the safety jacket, the rescue loop is closed immediately and guarantees the safe and immediate function.

B The rescue sling is closed with the HEART LIGHT special karabiner to form a ring.

ATTENTION:



Check that the rescue loop is correctly connected with the HEART LIGHT connecting hook. The fastener of the HEART LIGHT connection karabiner must point downwards.

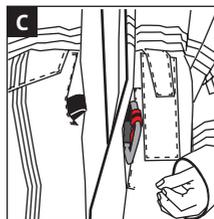


WHEN USED OR DURING DRILLS

- The IRS is always 'closed and ready for operation', and stowed correctly. Please observe the User Manual of the manufacturer when stowing the jacket.
- If a danger is identified that makes it likely that there is a risk that the panic function on the jacket zip will be used, the wearer of the safety garment should agree the priority of the safety goals with their manager based on the local risk assessment at the damaged site.

TAKING THE SAFETY JACKET OFF

C The HEART LIGHT karabiner is detached from one side of the rescue loop. The self-belay sling FW/N FR remains hooked in and stowed in the storage unit.



IRS IN USE

RESTRAINT

D Create an anchor point using lanyards. Spar and rungs included. Hook the FW/N FR self-belay sling into a lanyard.

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 (karabiner)! (fall factor < 0.5 , fall height < 0.3 m). The anchor point must be adequately strong (EN 795); min. 10.0 kN (for one person).

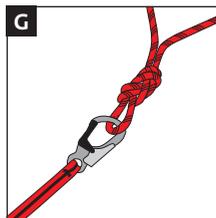
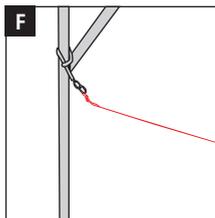
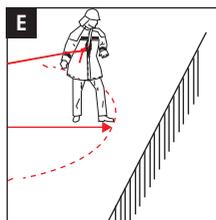
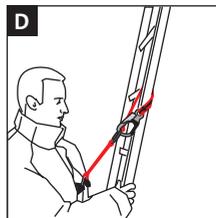
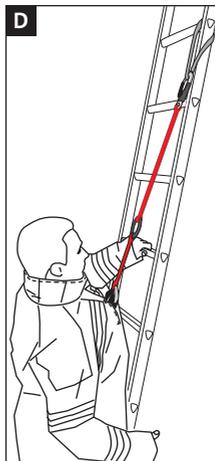
RETENTION

E The IRS must be attached to an anchor point so that the fall edge is not reached. This prevents a fall. The anchor point must be adequately strong (EN 795); min. 10.0 kN (for one person).

RESCUING PERSONS

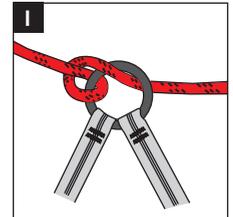
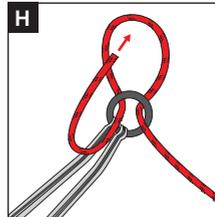
F Attach the fire service line to an adequately strong anchor point.

G Attach the fire service line with a figure of eight knot to the attachment karabiner as a retention system.



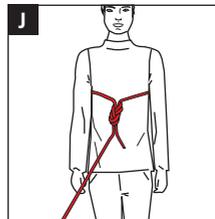
IRS IN USE

H 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.

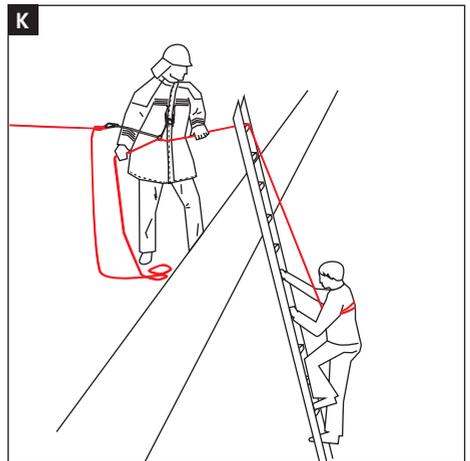


I Check function.

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



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



ATTENTION:



Avoid sharp edges/rough surfaces. There is a risk of falling.

ATTENTION:

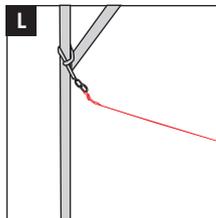


The total length including the end connection and lanyard may not exceed 2.0 m.

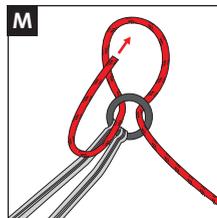
IRS IN USE

SELF-RESCUE

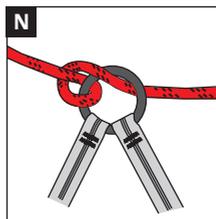
L Attach the fire service line to an adequately strong anchor point (EN 795); min. 10.0 kN (for one person).



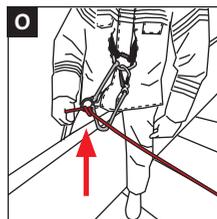
M Guide the fire service line through the multi-function ring by means of a half-mast knot. As shown above, feed the line with a lark's head knot through the steel ring, thread the linen bag through the lark's head knot.



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



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



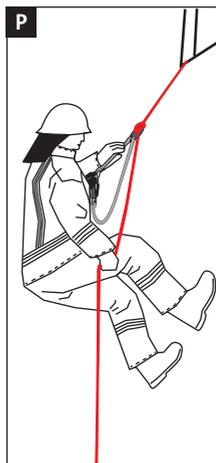
ATTENTION:

Prevent edge loads.

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



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



ATTENTION:

The IRS 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.

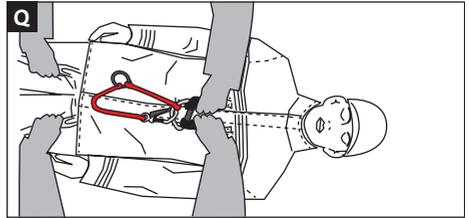
An independent securing system is e.g. a Top-Rope system with fall prevention equipment. acc. to DIN 14800-17.

IRS IN USE

IMMEDIATE RESCUE (CRASH RESCUE)

A colleague is dragged away by two fire service members.

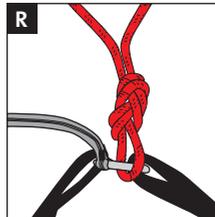
Q Hold the casualty on the rescue sling with one hand. The casualty can now be pulled from the danger zone.



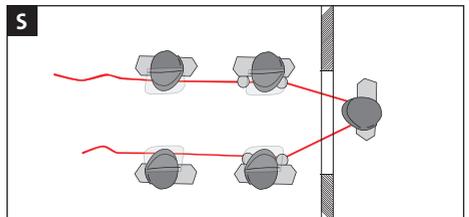
PULL UP OR LOWER

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

R Attach the middle of the fire service line on the HEART LIGHT attachment karabiner of the IRS by means of a figure of eight knot.



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



ATTENTION:
Avoid sharp edges/rough surfaces. There is a risk of falling.

ATTENTION:
The total length including the end connection and lanyard may not exceed 2.0 m.

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 or dubious personal protective equipment or safety devices must be immediately withdrawn and not used. The equipment may only be inspected by an expert in compliance with DGUV (German Social Accident Insurance) principle 312-906, by BORNACK or by 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 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).
- The combinability and protective effect of the PPE must be checked for each hazard situation (risk assessment).

SAFETY REGULATIONS

- If a casualty hangs motionless in a full body harness for a longer time, blood cannot flow back from the legs and/or the flow may be interrupted. This can lead to a suspension trauma, a circulatory shock with serious to fatal consequences.
- Before rescue operations begin, a rescue plan of action for the respective rescue 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 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.
- The local safety guidelines (e.g. in Germany, the DGUV Regulations 112-198 and 112-199 issued by the professional associations) and the accident prevention guidelines for the specific industry (UVV) must be observed.
- Application temperature: +80 °C to -40 °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 this PPE or other BORNACK services, such as:

- Risk analyses
- Rescue plans
- Training courses
- Expert inspections
- Technical inspections
- Maintenance + inspections

Please contact our e-mail hotline:
info@bornack.de

We will be happy to help!

REGULAR INSPECTIONS

- This personal protective equipment must be inspected at least once a year by an expert in compliance with DGUV Principle 312-906. The result must be documented in the test card at the end of this User Manual.

MAINTENANCE

- If necessary, apply a small amount of oil on the joints so that the moving parts of the karabiner and other devices run smoothly. If possible, use precision mechanics oil. Ensure that the oil does not come into contact with textile PPE components.
- Maintenance may only be carried out by a qualified expert in compliance with DGUV Principle 312-906. All instructions in this User Manual must be strictly observed.
- Protective equipment that is clean and well looked after will last longer!

OTHER

CLEANING

- Dry damp personal protective equipment in the air, not on artificial heat sources. Dry metal components with cloths.
- Clean soiled textile components (e.g. arrester harnesses and ropes) with lukewarm water and a little detergent for delicates. Then rinse carefully and allow to dry in the air.
- If disinfection is necessary, please contact the e-mail hotline:
info@bornack.de
- If the personal protective equipment comes into contact with salt-water, keep it wet until it can be rinsed with plenty of distilled water.
- Use compressed air to blow on the unit if necessary.

LIFE SPAN

The following recommendations are made for the use of the IRS 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 about these parts based on his technical expertise.

Intensive use, extreme operating instructions, like sharp edges, chemical influences, UV radiation contact with contaminated extinguishing water, extinguishing water additives, extinguishing gases, fumes, thermal damage due to the effect of heat, flames, melting damage caused by hot ashes etc. can reduce the usage period for safety reasons. 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 personal protection equipment protected in a device case or device bag.

OTHER

MAINTENANCE INFORMATION

Repairs may only be carried out by the manufacturer.

OTHER

PRODUCT IDENTIFICATION

The rope protection equipment has the following information on the identification:

Identification rescue loop:

	Product name ↓		CE symbol ↓		
Product category →	RS XT02 Rettungsschleufe		CE 0123		← Logo
Product type →	 RSXT02/FLB/BK,WH/-		⚖ 150 kg ←		← Max. user weight
Size →	 L (114–122 cm)		EN 358:2018 ←		← EN norms
Article no. →	 1003607_G004_K000		EN 1498-A:2006	R	← Data matrix
Charge →	 20-1234567		BORNACK GmbH & Co. KG		
Serial no. →	 001		Bustadt 39, 74360 Ilsfeld		
Production date →	 01/2020		Germany		↑ Observe/read the User Manual
			↑ 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

Rescue/restraint loop for integration in jackets
RS XT02

- 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 0291 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

20 March 2020

BORNACK GmbH & Co. KG



Ulrike Bornack
Managing Director

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

Self-securing sling / Anchor device
FW/N FR

- 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 566:2017 EN 795:2012
- is identical to the PPE that is the object of the EU type-examination certificate No. P5A 040506 0288 Rev. 00

issued by

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Zertifizierstelle
Ridlerstraße 65
80339 München
Germany
CE 0123

20 March 2020

BORNACK GmbH & Co. KG

A handwritten signature in black ink, appearing to read 'U. Bornack'.

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 rescue loop: RS XT

Production date: _____

Serial no.: _____

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

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 self-securing sling: _____

Production date: _____

Serial no.: _____

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				



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: 07/2021 GAL Art.-No. 8000099_EN ebo

