

# **BOROS**

Fire fighting boots certified according to EN 15090.

Highest comfort. Maximum protection.







## BOROS.

#### Boots to make you feel good.

Boots are more than just a piece of equipment for firefighters. They accompany them from the moment they put them on in the fire station changing room until they return after the call-out. Through cold and heat. Through fire and water. Whether they're dealing with ice or hot rubble. They not only protect the wearer's feet, but ensure a sure-footed response and protect the firefighter's entire body for hours at a time.

#### Specially developed for the fire service

With their new BOROS boot line, the Rosenbauer developers have paid particular attention to making the boots feel as if they are one with the wearer. They aim to not only be stable, robust and optimally protect the feet of firefighters as they go about their tough, everyday life, but to also be as light as possible, as comfortable as possible and as practical as possible. The answer to all these demands is the BOROS B1 pull-on boot and the BOROS B4 with the Rosenbauer quick release fastener.

By using the most modern materials, specially developed technologies and, most importantly, by completely focusing on Rosenbauer's clientèle — including fire brigades all over the world – Rosenbauer was able to achieve this goal. Everyone can now enjoy wearing them, safe in the knowledge that they are perfectly equipped.

All BOROS models are certified according to the European standard (EN15090 F2A) for fire fighting boots and are suitable for outdoor and indoor use.

#### Our name is our bond: Rosenbauer

For over 150 years, Rosenbauer led the way as a pioneer and a partner for emergency services. We are unique in our ability to deliver effective solutions for every single decisive moment in fire and disaster control.

From preventative fire safety systems to all types of emergency vehicles, from digital applications to personal and technical equipment. As a system provider, Rosenbauer handles all these fields with competence and experience. For Rosenbauer, perfection means preserving our legacy as a driver of progress. That's why we continue to set new standards with our technological innovations in fire and disaster control. Through in-depth conversations with our clients, we develop exactly the right solutions so that we can be at your side when you need us most. Worldwide. Everything you need to be optimally equipped for that decisive moment.



# The Construction.

### What makes BOROS boots different?

When it comes to safety and durability, all BOROS models share the same features, delivering uncompromising reliability.

#### The standard is EN 15090



European standard for firefighting footwear Type 2: All fire fighting and rescue operations, protection against penetration, toe protection, no protection against chemical hazards

#### Sustainable production

The main material used is bull hide leather produced in Germany in an environmentally friendly and socially responsible manner.

# The insole: Breathable, washable at 30 °C Stabilising insole for a good grip Integrated cushioning for protection against impacts Different thicknesses available for comfortable width adjustment



## Focus on the sole.

## Step forward in safety.

To a large extent, the sole of a boot determines how safely you can move around. The key to ensuring good adhesion to the walking surface are the grips on the sole. Only a profiled sole can keep a sufficient grip on uneven ground, whether that be on ice and snow, or rubble and scree. When it comes to firefighting operations, another factor comes into play – the sole of the boot must function in all temperature ranges, from the freezing cold through to environments that are quite literally burning hot.

#### Collaboration with Michelin for the perfect grip

When it comes to the tires on its PANTHER airport fire engine, Rosenbauer relies on a rubber compound from Michelin, one of the world's most renowned manufacturers. So, Michelin developed a sole exclusively for Rosenbauer, ensuring that BOROS boots grip tightly in all situations, while remaining extraordinarily resistant. Not only are they resistant to mechanical stresses, they are also resistant to oil, petrol and most acids. In addition, the antistatic rubber compound prevents sparking, which offers an added layer of protection when working in potentially explosive areas.

#### Replaceable soles

The sole of the boot can also be replaced if it becomes damaged through thermal overstress or mechanical wear. This is both sustainable and saves the cost of purchasing a new pair of boots by allowing the components to be separately replaced.

#### Long service life

In order to ensure a long service life, the heel and toe areas, which are particularly exposed to stress, have been solidly constructed.









#### 1 Thread wear indicator

The integrated indicator shows whether the sole has sufficient tread thickness.

#### 2 High flexibility

The blocks of treads are interrupted by grooves, providing greater flexibility around the ball of the foot. This supports the natural rolling movement of the foot.

#### 3 Special profile

The combination of the siping and a unique tread geometry ensures excellent grip, even on slippery surfaces.

#### 4 Pull-off aid

A stable edge in the heel area makes it easy and comfortable to remove the boot.

#### Special rubber compound

A rubber compound has been developed especially for firefighting use; it functions reliably in both extreme cold (-40 °C) and extreme heat (300 °C).

#### **Penetration protection**

Penetration protection made from steel is integrated into the sole. This provides the wearer with a level of protection from injury caused by items like protruding nails etc.

#### **Excellent cushioning**

Rubber strips inside the sole provide very good cushioning, especially in the heel area.

# The right climate.

## SympaTex® ensures dry feet.

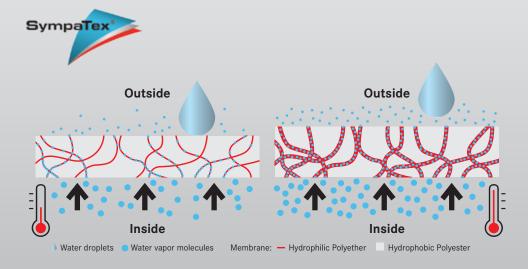
Whether it's scorching heat or freezing cold, steam or icy rain, a firefighter's boots are exposed to the toughest of adverse external conditions. But this is only one side of the story. Inside the boot, a sweaty, stressed foot can quickly create a quasi-tropical climate. To meet this challenge and regulate temperature and humidity, Rosenbauer developed the ideal solution for their boots by using a membrane made from SympaTex®.

#### Why use SympaTex® in BOROS models?

All climate membranes are selectively permeable with respect to water. This means that they are impermeable to water droplets, but permeable to water vapour, which makes them breathable.

The SympaTex® membrane is permeated with tiny threads that are very sensitive to moisture and swell when damp and thus remove more water vapor away from the body. In brief, the more heat that is generated, the better the climate regulation performance.

This clearly speaks for the use of the BOROS models - in summer and winter. In addition, the membrane is extremely stretchy, fits the shape of the boot perfectly and retains its functional properties in every situation.







#### **Sustainable production**

No environmentally harmful substances such as fluorine are used in the production of the SympaTex® membrane. And at the end of its service life, the material can be fully recycled.





# BOROS B1.

## The pull-on boot from Rosenbauer.

Around the world, the pull-on boot is a valued item in a firefighter's personal protective equipment. Its simplicity and light weight make it a reliable and comfortable, easy-to-wear and simple to care for piece of kit for the emergency services. These advantages place the BOROS B1 in a class of its own, while also providing the full range of equipment benefits that Rosenbauer offers throughout the entire BOROS boot line.



#### Flex zone and low weight

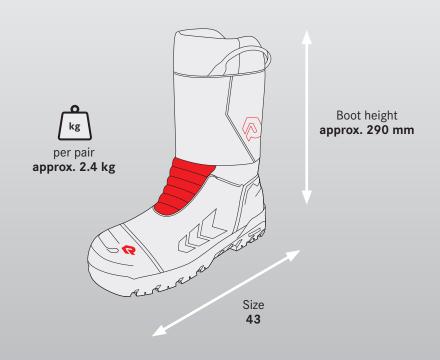
The flex zone in the instep and ankle area ensures that the BOROS B1 provides very good freedom of movement. The simple pull-on system ensures an extremely low weight boot that requires minimum cleaning effort. The simple and well thought-out design means the BOROS B1 is optimally cost-efficient.

#### **BOROS B1**

- Certified according to EN 15090 F2A HI3 CI AN SRC
- With SympaTex® membrane
- Boot height D
- Width 10
- Sizes 36 52

#### **Options:**

- Without SympaTex® membrane
- Orthopedic insole
- Insole for width 12





## **BOROS B4.**

#### The boot with the Rosenbauer quick release fastener.



The aim when developing the BOROS B4 was to combine the advantages of all known types of fasteners: simple operation, individual adjustability, as well as the ability to put on and take off the boot quickly while ensuring the boot weighs as little as possible. To achieve this goal, the boot specialists at Rosenbauer had to break new ground when it came to fastener technology. The end result was the revolutionary Rosenbauer quick release fastener.

#### A revolutionary system

With one pull on the Rosenbauer quick release fastener, the BOROS B4 is put on. In the same way, with just one click the central buckle releases the tension from the lacing system, enabling the boot to be removed in a flash. Individual minor adjustments can also be made in two separate areas.

# Full freedom of movement, full protection

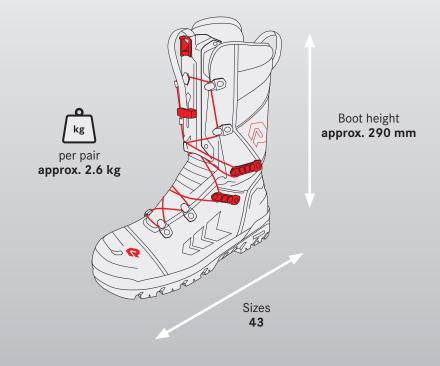
Despite the flatness of the sole of the foot, people can actually rotate their bent lower leg 360° thanks to their ankle joint. The BOROS B4 does justice to this natural mobility with its special flex zone in the ankle area. It allows for natural flexing and leaning movements while protecting against too much strain. This means that the emergency services can enjoy the maximum protection and almost forget that they are wearing boots.

#### **BOROS B4**

- Certified according to EN 15090 F2A HI3 CI AN SRC
- With SympaTex® membrane
- Boot height D
- Width 10
- Sizes 36 52

#### **Options:**

- Orthopedic insole
- Insole for width 12



# The unique quick release fastener.

#### Perfect fit in a matter of seconds.

The revolutionary Rosenbauer quick release fastener makes it possible: to pull on and take off the fire fighting boots in seconds. Once adjusted, open and close the BOROS B4 in seconds, even both feet simultaneously.











#### Fast and accurate fitting

- Once the foot is in the boot, one pull on the strap is enough to tighten the laces. The perfect fit is then automatically maintained by the central buckle.
- 2 To take the boot off, the entire closure system is opened by pressing the central buckle. It can then be removed effortlessly and quicly.
- Furthermore, the BOROS B4 can be perfectly adapted to the anatomy of its wearer. The 2-zone lacing allows for individual adjustment of the foot and shaft area.

#### Safe operation

A special open loop area ensures that the boot always opens completely. This guarantees easy and safe operation when closing and opening.

The BOROS B4 closure system is not only lightning fast, but extremely practical as it can also be operated while wearing pull-on over trousers.

#### Flame resistant materials

All plastics used in the closure mechanism and the aramid straps are extremely heat and flame resistant and very mechanically resilient. The Rosenbauer hook-in system means that damaged laces can be easily replaced.



# For a long service life.

## A one-stop shop for development and production.

Rosenbauer has been at the forefront of developing and manufacturing fire fighting technology for decades, and considers innovative strength as one of their greatest and most enduring competencies. The development department for personal protective equipment is at the heart of ongoing technological advances, the test laboratory is the guarantor for durability, and extensive real-life testing guarantees the highest levels of functionality.



#### PPE from head to toe

Rosenbauer supplies perfectly coordinated equipment from head to toe. Rosenbauer is the only supplier to produce all personal protective equipment for firefighting operations itself, with all the equipment from helmet to boot being designed by their own staff. The new BOROS fire fighting boots perfectly round off the highly innovative personal equipment.





# For fire service professionals by fire service professionals

Rosenbauer is in constant contact with fire brigades, both locally and throughout the world. This guarantees that their staff receive practical feedback during the development process. In addition, every piece of protective equipment is tested under real-world conditions before being launched on the market. What enters the market as an innovation, corresponds 100 % to the demands and needs of customers.

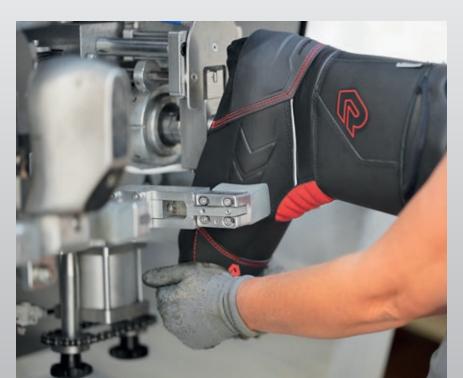


#### **Product development and production**

Rosenbauer's 20 years of experience in the fire fighting boot sector, the expertise of its technology partners, and the drive to constantly improve, can all be seen in the BOROS boot line. In addition, Rosenbauer is committed to European value creation: the premium leather for the upper material is of German origin the manufacturing takes place in Central Europe.

# The harshest tests to ensure the most reliable equipment

Rosenbauer tests its BOROS boots under the toughest conditions. This is not simply a matter of meeting standard specifications, but of manufacturing a high-quality product. They need to fulfil their purpose when being uses, as well as providing good service to the wearer for a long time.



## **BOROS Fire Fighting Boots**



#### **BOROS** fire fighting boots ordering data

191001xx*	Sizes: 36 - 52	BOROS B1 with SympaTex® membrane and insole for width 10
194001xx*	Sizes: 36 - 52	BOROS B4 with SympaTex® membrane and insole for width 10

#### Ordering data BOROS accessoires

199002xx*	Sizes: 36 - 52	BOROS insole for width 10
199003xx*	Sizes: 36 - 52	BOROS insole for width 12
199004xx*	Sizes: 37 - 47	BOROS othopedic insole

<sup>\*</sup>Instead of "xx" insert the size in the item number e.g. 19100143 for BOROS B1, size 43

#### **BOROS** care products ordering data

143939	Solitaire 3-way care and impregnation spray, 400 ml
143936	Solitaire Brilliant care cream, 75 ml and sponge applicator

#### **Equivalent sizes for Rosenbauer fire fighting boots**

EU	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
UK	3	4	5	6	6.5	7	8	9	9.5	10.5	11.5	12	13	13.5	14	14.5	15
USA	4	4.5	5.5	6.5	7	7.5	8.5	9.5	10	11	12	12.5	13.5	14	14.5	15	15.5



#### The standard is EN 15090

European standard for firefighting footwear Type 2: All fire fighting and rescue operations

Protection against penetration, toe protection, no protection against chemical hazards

HI3	Heat insulation according to EN 15090					
SRC	Slip resistance according to EN 20345					
Α	Shoes resistant to static electricity according to EN 20345					
Р	Penetration resistance by means of a metal insert according to EN 20345					
Т	Toe protection according to EN 20345					
CI	Cold insulation of the sub-base according to EN 20345					
AN	Ankle protection according to EN 20345					
E	Energy absorption in the heel area according to EN 20345					
WR	Waterproof according to EN 20345 (protection is increased for models with membrane)					
WRU	Water penetration and water absorption according to EN 20345					
HRO	Performance when coming into contact with heat according to EN 20345					
FO	Resistance to fuel according to EN 20345					



#### Note on accessories and spare parts!

All tests were carried out using original Rosenbauer accessories. The boots may only be used with these and may not otherwise be altered in any way. This is the only way to ensure the guaranteed and tested properties of the boots.





