

Instructions for Installation, Use and Maintenance

Safety Shower Systems per DIN EN 15154-2006 T1-2, DIN 12 899 T1-3 and ANSI Z 358-2004

Product range:

Unheated Safety Showers

Article numbers BR 860 xxx through BR 878 xxx

Please complete the following entries:

(These data are essential when making enquiries.)

Safety shower model: _____

Purchased from: _____

Location: _____

Responsible party: _____

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General

The requirements set forth in all applicable legal requirements through May 2004 are taken into account in these instructions for use.

Caution

In the event that any applicable laws are changed, we shall not update these instructions for use unless commissioned to do so.
These instructions for use do not replace the legally required work directive which must be prepared by the operating company for the safety shower.

1 Manufacturer and Technical Data

1.1 Manufacturer

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1.2 Customer Service

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1.3 Designation and Intended Purpose

Safety shower system in accordance with DIN EN 15154-2006 T1-2, DIN 12 899 T1-3 and ANSI Z 358-2004 for rinsing and decontaminating persons in the event of an emergency. NOT suitable for use in areas subject to freezing temperatures.

1.4 Design

Piping: steel, see 1.4 for details:

- Safety showers with galvanised steel piping are supplied with plastic shower heads (spray nozzles for an additional charge).
- Safety showers with stainless steel piping are supplied with spray nozzles (stainless steel shower heads for an additional charge).

1.5 General Technical Data

Model:	Pipe material: Stainless Steel	Pipe material: Galvanised Steel	Body Shower Flow rate: 115 l/min	Hand-held eyewash flow rate: 8 l/min	Eyewash flow rate: 16 l/min	Water Inlet Female
BR 860 005		x	X			1"
BR 860 005ES	x		X			1"
BR 862 005		x	x		x	3/4"
BR 862 005ES	x		x		x	3/4"
BR 863 005		x	x	x		3/4"
BR 863 005ES	x		x	x		3/4"
BR 865 005		x	x			1"
BR 865 005ES	x		x			1"
BR 866 005		x	x		x	3/4"
BR 866 005ES	x		x		x	3/4"
BR 867 005		x	x		x	3/4"
BR 867 005ES	x		x		x	3/4"
BR 868 005		x	x		x	3/4"
BR 868 005ES	x		x		x	3/4"
BR 870 005		x	x			1 1/4"
BR 870 005ES	x		x			1 1/4"
BR 872 005		x	x		x	1 1/4"
BR 872 005ES	x		x		x	1 1/4"
BR 872 005ES / SE	x		x		x	1 1/4"
BR 873 005		x	x	x		1 1/4"
BR 873 005ES	x		x	x		1 1/4"
BR 876 005		x	x		x	1 1/4"
BR 876 005ES	x		x		x	1 1/4"
BR 877 005		x	x		x	1 1/4"
BR 877 005ES	x		x		x	1 1/4"
BR 878 005		x	x		x	1 1/4"
BR 878 005ES	x		x		x	1 1/4"

1.6 Accessories / Options for Safety Showers

Safety shower systems can be ordered with options (accessories). If any of the below listed options have been ordered, please refer to separately furnished, supplementary instructions for installation, use and maintenance.

position lamp
switch for emergency alarm
alarm horn
housing

1.7 Guarantee

Our liability for defective equipment is specified in our terms and conditions of delivery. We assume no liability for damages resulting from non-observance of the instructions for use and maintenance, or from non-observance of the specified conditions of use.

Only products which are free of defects, and which demonstrate all characteristics specified by ourselves, are permitted to leave our factory. Proper functioning is thus assured if the instructions for use and maintenance are carefully observed.

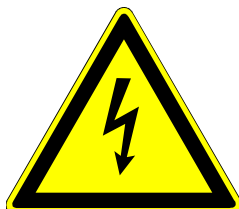
1.8 Safety

These instructions for use and maintenance contain essential information which must be observed during use, maintenance and repair. These instructions for use and maintenance must therefore be read by trained personnel before the safety shower is placed into service, and a work directive must be prepared by the operating company which makes reference to these instructions for use, as well as local and company-specific circumstances, and trained personnel must be accordingly instructed before working on or with the safety shower.

The safety precautions included in these instructions for use, non-observance of which may be hazardous for human beings and the environment, are identified with the general warning symbol in accordance with accident prevention regulation BGV A 8:



Or with the following symbol for warnings regarding electrical voltage:



The word

Caution

is added to safety precautions whose non-observance may be hazardous for the respective technical equipment and its functions. It is absolutely essential to observe all instructions which are attached directly to the safety shower systems, and to keep them in easily legible condition.

1.9 Hazards Resulting from Non-observance of Safety Precautions



Non-observance of safety precautions may be hazardous to human beings, as well as the respective technical equipment. Non-observance of safety precautions may render the guarantee null and void, and may bar any possible claims for damage.

All safety precautions listed in these instructions for use and maintenance, all applicable legal regulations and accident prevention regulations, and the work directive and safety precautions issued by the operating company must be observed.

Safety Precautions for the Operating Company

- Technical safety equipment must be kept in an operationally reliable condition.
- The functional reliability of the power supply for the frost guard may not be impaired.
- Safety shower systems must be installed such that the user has direct access to the shower.

Safety Precautions for Maintenance, Inspection and Installation Work

The operating company must assure that all maintenance and installation work is executed by authorised, qualified, trained personnel.



Work may only be performed on the electrical system by trained electricians after it has been disconnected from all sources of electrical power – see also the applicable accident prevention regulation, VDE regulations and regulations issued by your local power utility (only applies to safety shower systems equipped with electrical accessories).

Impermissible Modes of Operation

The technical safety equipment integrated into safety shower systems, for example heater, alarm switch, illumination, actuating mechanism etc., must always be kept in good working order.



It is impermissible for the operating company to neglect any of its respective legal responsibilities, for example:

- Non-issuance of the required work directive and/or
- Neglecting to prepare a hazard analysis and/or
- Non-observance of specified maintenance work, inspection work and periodic testing and/or
- Neglecting to provide personnel with required instruction for proper use of the safety shower system, which must be held at least once a year

1.10 Range of Applications

Safety shower systems are intended for rinsing and decontaminating persons.

2 Storage and Transport

If at all possible, the safety shower systems must be stored and transported to the installation site in the supplied transport packaging (carton and pallet) under dry, frost-free conditions.

Note: Improper handling results in increased danger of tipping!

3 Installation

3.1 Requirements for the Installation Site

Subfloors must be level, and must be capable of withstanding the weight of the safety showers after installation and filling. Wall surfaces and steel structures must be capable of withstanding the weight of the safety shower systems along with all required piping.

Beyond this, the installation site must be arranged such that the safety shower:

- Cannot be damaged by vehicles
- Allows for unobstructed access by users at all times
- Is located less than 30 metres from areas of potential danger and can be accessed within 10 seconds. A distance of 3 to 6 metres is recommended in the case of highly caustic substances.
- The area around the shower should be well illuminated, and the shower itself should be identified with highly visible signs.

3.2 Installation



A 1¼" female thread is supplied for connecting the water supply line (wall mounted versions: 1" female). We recommend connecting the shower to the water supply using a pipe with a nominal diameter of 1½". Water pressure should have a value of 2 to 8 bar. The water supply line to the safety shower system should be equipped with a stop cock in close proximity to the system for maintenance and repair work, which is secured against unauthorised access.

The open space underneath the safety shower must have a radius of 40 cm. Installation height should be 220 cm ± 10 cm.

Caution

Any possibility of consequential damages resulting from water discharged during use of the safety shower system must be ruled out. If applicable, discharged water must be reliably diverted by means of fairings and catch basins.

3.2.1 Freestanding Safety Showers

Free-standing safety body showers must be securely screwed to the floor by means of the base plate. Which type of fasteners are required must be determined at the installation site by installation personnel depending upon the type of foundation.

3.2.2 Wall mounted Safety Showers

Wall mounted versions must be securely screwed to the vertical structure. Which type of fasteners are required must be determined at the installation site by installation personnel depending upon the utilised type of on-site structure.

3.2.3 Models with Optional Platform Actuation

Caution

Platform actuators must be securely screwed to the floor. Which type of fasteners are required must be determined at the installation site by installation personnel depending upon the type of foundation.

The actuating chain is cut to length at the factory. During setup at the installation site, it must be assured that the actuating chain opens the valve all the way when the platform is subjected to full loading, but it must also

have a small amount of remaining free play. If there is no free play, for example due to an out-of-level foundation, the chain must be lengthened because the shower valve will otherwise be damaged.

The return spring is also preset at the factory. During setup at the installation site, it must be assured that the spring holds the platform up, and that the actuating chain to the valve is not subjected to any load.

3.2.5 Models with Eyewash

3.2.5.1 Model with Eyewash

Connect the eyewash and the body shower by means of the double-nipple adapter.

3.2.5.2 Model with hand-held Eyewash

Screw mount the retainer for the hand-held eyewash at a height of approximately 900 mm. Connect the hose between the eyewash and the body shower by means of the double-nipple adapter.

3.2.5.3 Model with Eyewash with bowl and lid

Remove the eyewash base. Drill the holes required for mounting the pipe clamps with the help of the included drilling template. Place the eyewash up against the body shower at a height of approximately 970 mm and secure it with the pipe clamps, screws and nuts. Properly align the eyewash and tighten the screws. Reinstall the base. Connect the $\frac{3}{8}$ " hose between the eyewash and the body shower by means of the double-nipple adapter.

3.2.5 Model with Eyewash and Optional Foot Lever Actuation

Caution

The actuating chain is cut to length at the factory. During setup at the installation site, it must be assured that the actuating chain opens the valve all the way when the platform is subjected to full loading, but it must also have a small amount of remaining free play. If there is no free play, for example due to an out-of-level foundation, the chain must be lengthened because the shower valve will otherwise be damaged.

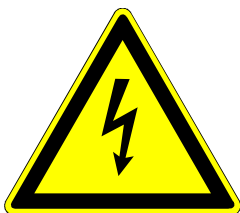
3.2.6 Models with Catch Basin

Catch basins must be securely screwed to the floor. Which type of fasteners are required must be determined at the installation site by installation personnel depending upon the type of foundation. The water outlet is equipped with a 2" male drain pipe. Water disposal fixtures required for further transport of waste water must be clarified at the installation site.

Position the catch basin centrally underneath the shower's overhead spray nozzle. If an eyewash with bowl has also been installed, check to see whether or not the bowl drains into the catch basin. If not, for example if the eyewash has been side mounted, the drain must be directed to the catch basin on-site.

As a result of the shower's design, splash water will also fall outside of the catch basin, especially in consideration of the fact that the user causes additional dispersion. If the possibility exists that this may result in danger, please make use of our housings.

3.2.7 Electrical Connection



If the safety shower is equipped with electrically operated options, supply power must be protected with an appropriately dimensioned fuse, as well as an RCCB (residual current circuit breaker) with a maximum tripping current of 30 mA. All of the shower system's metallic components must be electrically connected to

equipotential bonding included in the existing electrical system. Any special building requirements (such as Ex zones, EMC, corrosion protection etc.) must be examined on-site and taken into consideration as required. Inspection and testing of all safety equipment (safety measures) for correct functioning must be executed and documented. All applicable VDE and other overriding requirements must be observed and adhered to.

Caution

Safety shower systems can be ordered for use in potentially explosive atmospheres. Make sure that the system is appropriately identified for use in the required environment before initial start-up in hazardous areas!

4 Initial Start-Up

After installation, water should be allowed to run through the body shower and the eyewash (if included), until it is clean and free of contamination. The jet regulators must be removed from the eyewash and the nozzles / shower heads to this end. The jet regulators and the nozzles / shower heads must then be replaced.

5 Use

5.1 Body Showers with Pull Handle

Pull the handle all the way down to the valve lever limit stop.

After the shower has started:

Remove all contaminated clothing which is not stuck to your skin, and rinse all effected areas with cool, clean water.

In order to stop the shower, push the lever up until the valve is closed.
Seek medical attention!

5.2 Body Shower with Pull Handle and Platform

Pull the handle all the way down to the valve lever limit stop, or step onto the platform.

After the shower has started:

Remove all contaminated clothing which is not stuck to your skin, and rinse all effected areas with cool, clean water.

In order to stop the shower, step off of the platform and push the lever up until the valve is closed.
Seek medical attention!

5.3 Models with Eyewash

5.3.1 Eyewash

Rotate the actuating lever a quarter turn in order to start the eyewash. After doing so, the dust cover drops from the shower as a result of the first surge of water.

The eyewash should not make direct contact with the contaminated eye or any surrounding areas. Ideal rinsing is assured at a distance of approximately 15 cm.

A flow control valve is integrated into the eyewash. The height of the water jet can thus be adjusted as desired with the help of a hex key depending upon on-site water pressure.

In order to stop the shower, push the lever up until the valve is closed.
Seek medical attention!

5.3.2 Hand-held Eyewash

The eyewash is started by pressing the red handle which is integrated into the handrail. The handle is detented in the open position with this type of actuation.

The eyewash should not make direct contact with the contaminated eye or any surrounding areas. Ideal rinsing is assured at a distance of approximately 15 cm. If the eyewash is mounted appropriately, it can be operated either inside or outside of its retainer. When operated in the retainer, the user is able to simultaneously hold the lids of both contaminated eyes open with his hands. However, the eyewash can be removed from the retainer as well, so that other body parts and recumbent injured persons lying on the floor can be rinsed as well.

The shower is shut off by once more pressing the red handle while simultaneously pulling down the locking mechanism.

Seek medical attention!

5.3.3 Eyewash with bowl

The eyewash is started by pushing back the lever which is attached to the right-hand side.

The eyewash should not make direct contact with the contaminated eye or any surrounding areas. Ideal rinsing is assured at a distance of approximately 15 cm.

If the eyewash has been ordered with option 160 0045 (hand-held eyewash attached to spiral tube), the eyewash is started automatically by means of the lever which is attached to the right-hand side. The hand-held eyewash cannot be separately activated and deactivated.

A flow control valve is integrated into the eyewash. The height of the water jet can thus be adjusted as desired with the help of a hex key depending upon on-site water pressure.

In order to stop the shower, pull the lever forward until the valve is closed.

Seek medical attention!

5.3.4 Eyewash with bowl and lid

In order to start the eyewash, press the red release button in the middle at the top of the eyewash, or pull the eyewash lid towards yourself. In either case, the eyewash valve is opened and the eyewash is activated.

The eyewash should not make direct contact with the contaminated eye or any surrounding areas. Ideal rinsing is assured at a distance of approximately 15 cm.

If the eyewash has been ordered with option 160 0045 (hand-held eyewash attached to spiral tube), the eyewash is started automatically when the lid is opened. The hand-held eyewash cannot be separately activated and deactivated.

A flow control valve is integrated into the eyewash. The height of the water jet can thus be adjusted as desired with the help of a hex key depending upon on-site water pressure.

In order to stop the shower, push the lid up until the valve is closed.

Seek medical attention!

5.3.5 Eyewash with Optional Foot Lever Actuation

Same as 5.2.1 and 5.3.2, but the eyewash valve can also be opened by stepping on the T-shaped foot lever.

6 Inspections / Malfunctions

The safety shower system must be inspected for externally visible damage and defects after installation, before initial start-up and at the intervals listed below, as well as after modifications or repairs.

6.1 Weekly Inspection

- Test the body shower and eyewash actuation mechanisms.
- Platforms and foot levers: check for unrestricted movement, inspect springs and chains for damage.
- Visual inspection of the entire system for damage.

6.2 Malfunctions

Malfunction	Possible Cause	Possible Remedy
The volume of water which flows from the shower does not appear to be adequate.	Water pressure is too low or supply line cross-section is too small.	Test the water supply line. Make sure that the water supply line has a diameter of at least 1¼", or even better 1½", and that water pressure is at least 2 bar.
The volume of water which flows from the eyewash does not appear to be adequate.	Water pressure is too low, supply line cross-section is too small or the jet regulator is contaminated.	Unscrew the jet regulator and clean the regulator and sieve (blue). If water pressure is too low, low-pressure diffusers are available as accessories.
Water drips continuously from the shower.	The valve does not close correctly.	Inspect the valve limit-stop for damage and make sure that the valve is fully returned to the closed position.
Water drips continuously from the shower.	The valve seal is damaged.	Replace the valve.
The body showers and eyewash units are not stopped automatically after use.	This is not a malfunction. This is required by DIN.	This is not a malfunction. This is required by DIN.

7 Disposal

The shower system can be completely dismantled. The individual materials, i.e. metal, insulation, electrical components etc., can be separated and disposed of at a recycling centre. National and local disposal regulations must be adhered to.

8 Replacement Parts and Accessories

You will be provided with a replacement parts list upon request.

9 EC Declaration of Conformity

See attachment – if required.

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