

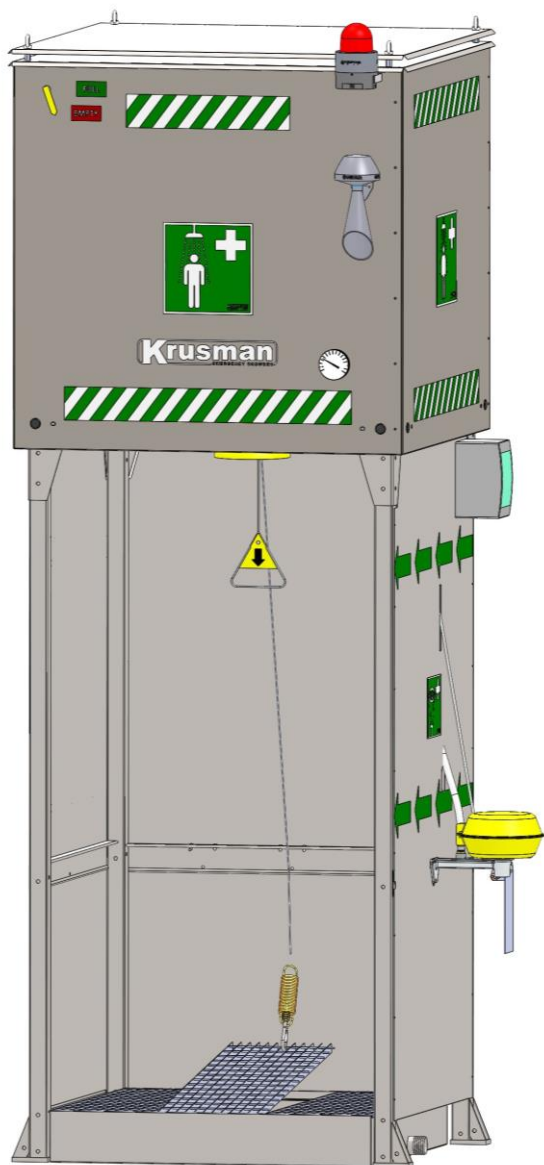
# EMERGENCY TANK SHOWER SYSTEM

(Gravity-fed Tank Shower with over head tank)

Model: 7021

Installation and maintenance manual (standard)

KRUSMAN NÖDDUSCHAR AB  
VÄSTERÅS, SWEDEN 2019



Product picture note

The tank shower on the picture is equipped with all optional fittings.

---

# Table of contents

- Table of contents..... 2
- 1. Introduction - Emergency Tank Shower System 1400L..... 3
  - 2.1 Transport..... 4
  - 2.2 Storage ..... 4
- 3. Component numbering ..... 5
  - 3.1 Component map..... 6
- 4. Optional fittings..... 7
- 5. Installation..... 8
  - 5.1 Lift and installation instructions..... 8
  - 5.2 Water connections ..... 8
  - 5.3 Commissioning ..... 9
- 6. Test run the shower and eyewash ..... 10
- 7. Maintenance ..... 11
- 8. Water Tank cleaning..... 12
  - 8.1 Refill the water tank..... 12
- 9. Eyewash cleaning ..... 13
- 10. Failure..... 14
- 11. Appendices (optional fittings) ..... 15

## 1. Introduction - Emergency Tank Shower System 1400L

The emergency shower system 7021 is incorporated with a pre-insulated 1400 litre tank. The tank guarantees a flow of tempered water for up to 15 minutes, when flushing separate (and without new incoming water). For tank shower model with included chiller, see model 7011.

The tank shower is supported on a stainless-steel frame and fitted with pictogram signs and green/white stripes to be as visible as possible.

The emergency shower is activated by a pull handle (and closed by the pull-handle) and/or by a step-on foot grid (optional fitting) and the eyewash is activated with a push-plate.

**Please read this manual carefully before installing and starting the emergency shower system.**

### **↳ Please note**

Make sure that the emergency shower system (the tank) is filled with water before starting it.

*This manual is originally written in Swedish. Krusman Emergency Showers reserve themselves for potential errors due to language barriers.*

## 2. Transport and storage

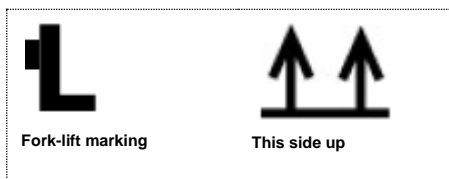
### 2.1 Transport

The emergency shower system is transported in a wooden case/wooden pallet.

Lift instructions:

1. Lift the units with a fork-lift truck according to the marking on the wooden case (fig. 1).

Figure 1



### 2.2 Storage

The units must be stored in the original wooden case until they are ready to be installed and set in use on site. The wooden case/pallet should be stored on a roof paved area.

### 3. Component numbering

1.	Emergency sign – Eyewash
2.	Step-on-foot grid (optional fitting) Standard: Pull rod for disabled person
3.	Eyewash (optional fitting)
4.	Pull rod
5.	Shower head 240mm
6.	Ball valve DN 15 with push plate
7.	Heater (optional fitting)
8.	Thermometer
9.	Control card - Eyewash
10.	Flashing beacon RED (optional fitting)
11.	Horn (optional fitting)
12.	Side and back panels (optional fitting)
13.	Sun shade (optional fitting)
15.	Junction box (optional fitting)
16.	Temperature sensor (optional fitting)
17.	Level indicator
	KNV641 Anti-bacterial additive (accessories)



---

## 4. Optional fittings

See data sheet model 7021.

## 5. Installation

### 5.1 Lift and installation instructions

1. Lift the wooden crate/pallet with a fork-lift truck to its place. Use sling and the lifting lugs to lift the tank shower (fig. 2) off the wooden pallet or out of the wooden crate (depending on packing method).
2. When lifting the tank shower with sling, proceed with adjusting the steel-stand in a plane surface.
3. Lift the tank shower to its foundation and place the feet over the anchor bolts. When the holes and the feet align with the anchor bolts slowly lower the tank shower to its place. Keep the lifting equipment attached so it keeps supporting the tank shower until it is properly mounted.
4. Make sure to turn the bolts tightly.



Figure 2: Lifting lugs

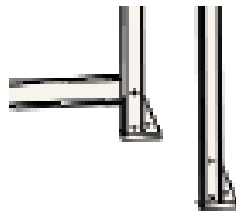


Figure 3: Feet

### 5.2 Water connections

When emergency shower system is in place and adjusted accordingly, connect the water supply.

1. Connect incoming water inlet (fig. 4).

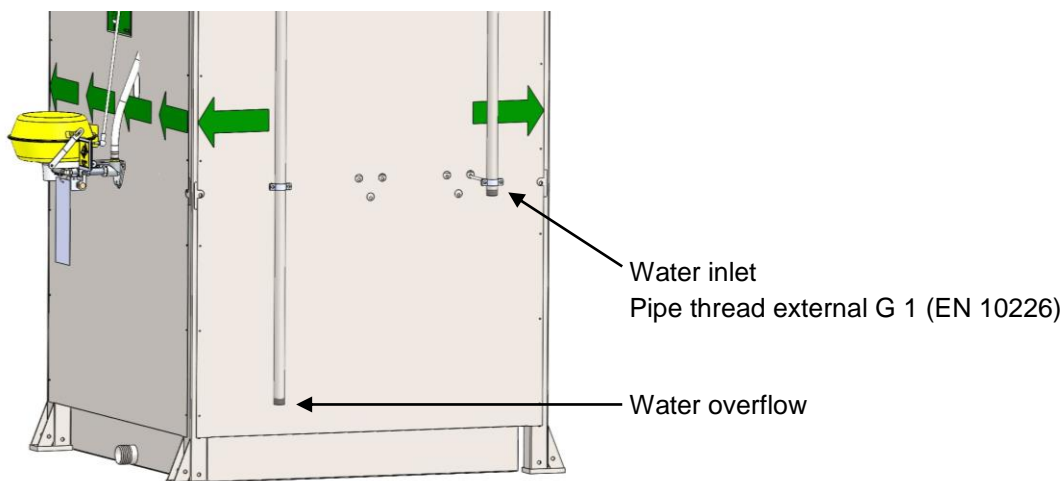


Figure 4: Water inlet



## 5.3 Commissioning

### **! Warning**

Before starting the emergency shower, water must be connected or the tank must be filled (see section 4 - Installation)

Start-up:

1. Make sure that valves to emergency shower and eyewash are in closed position.
2. Start to fill up the tank with incoming water from the main water-pipe.
3. Await until the tank is completely filled.
4. If the level indicator (component 17) is not following the water up, give it a small push.



**Please note.**

8. Check that valves of the emergency shower unit are not leaking.

## 6. Test run the shower and eyewash

Now test the shower and the eyewash (optional fitting) together.

1. Flush the shower thoroughly in order to make sure grindings and other particles are removed.
2. Check the function of the body shower and the valve by flushing it several times.
3. The shower should have a flow of approx. 76 l/min.
4. The shower is opened by the pull handle (or by optional fitting step-on-foot grid) and closed by the pull-handle (observe that the valve is not self-closing).
5. Flush the eyewash thoroughly in order to make sure grindings and other particles are removed.
6. Check the function of the eyewash and valve by flushing it several times.
7. Double check that the pipe drains properly on the eye shower.
8. The eyewash should have a flow of approx. 14 l/min in order to function as its best.
9. Observe that the push-plate (valve) is not self-closing.
10. Hand over the instruction sheet to the Safety Supervisor to make sure the emergency shower system is tested regularly.

Regular tests of emergency showers and eyewashes shall be done according to SS-EN 15154-1 & 2 latest edition and *ANSI Z358.1-latest edition*.

### **! Warning**

If traces of grindings and other particles are found in the system; an incorrect picture of the water flow can appear and be incorrect for both showers and eyewashes. See section 9 for eyewash cleaning.

---

## 7. Maintenance

- The water tank shall be cleaned once (1) a month (this is a recommendation to minimize algal formation and bad water). For cleaning procedure please see section 8.
- When use of anti-bacterial additive for tanks, the tank must be cleaner every 6<sup>th</sup> month.
- The eyewash (optional fitting) shall be cleaned regularly or after a sandstorm has occurred. For cleaning procedure please see section 9.
- The main water feed line is recommended to be flushed regularly in order to avoid the risk of legionella bacteria's through to the emergency shower unit.

---

## **8. Water Tank cleaning**

1. Close incoming water.
2. Open/activate the emergency shower and empty the tank.
3. Flush the inside of the tank with a hose of potable (drinking) water. We recommend using a mask over the mouth in case of legionella bacteria's has spread from the plants main water pipe into the tank.
4. Close the lid properly after cleaning.

### ***8.1 Refill the water tank***

1. Close the emergency shower.
2. Open incoming water.
3. Start filling up the tank with incoming water from the main water-pipe.
4. Await until the tank is completely filled.
5. If the level indicator is not following the water level up, give the indicator a small push.
6. Test the shower and the eyewash (if you have this as an optional fitting), see section 6.

## 9. Eyewash cleaning (optional fitting)

The eyewash must be cleaned frequently or after a sandstorm etc.

1. Unscrew the spray heads and clean them in water (pic. 8).
2. Mount the spray heads back on the eyewash.
3. Repeat frequently and if an incorrect flow picture appears or after each sandstorm etc.

 **Please note.**

**Tank showers without pump (models 7011, 7021) has no filters inside the spray heads.**



Figure 8: Eyewash spray heads

 **Please note.**

When testing the eyewash in a **cold climate**, a replacement eyewash assembly is to recommend as the assembly and eyewash heads can freeze after testing/use. Otherwise, please carefully dry all components before putting them back.

## 10. Failure

Possible failures that can appear:

**- Eyewash not operating properly (incorrect water flow).**

If traces of grindings and other particles are found in the system; an incorrect picture of the water flow can appear for the eyewash. Please check water level in the tank and/or clean the eyewash (see section 9).

**- The water is not heating (optional fitting).**

Check the power supply, fuse, RCD etc.

The immersion heater overheat thermostat can be tripped. Reset the overheat thermostat placed inside the connection box on the immersion heater.

**- No electrical power in the system.**

If this check the power supply, fuse, RCD etc.



---

# 11. Appendices (optional fittings)