

Manual



# Dry ice machine X-1



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#### 1. Safety instructions

- This device is suitable for indoor use (not outdoors) only.
- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Use only fuses of the same type and original parts as spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing

#### 1.1. For safe and efficient operation

#### Be careful with heat and extreme temperature

Avoid exposing it to direct rays of the sun or near a heating appliance. Not put it in a temperature bellow 32°F /0°C, or exceeding 104°F /40°C.

#### Keep away from humidity, water and dust

Do not place the set in a location with high humidity or lots of dust. Containers with water should not be placed on the set.

#### To avoid placing on un-stable location

Select a level and stable location to avoid vibration.

#### Do not use chemicals or volatile liquids for cleaning

Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

#### If out of work, contact sales agency immediately

Any troubles arose, remove the power plug soon, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result a danger of electric shock.

#### Take care with the power cable

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug. When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

#### Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.



#### 1.2. Further safety instructions

- The device has two heating elements. Connect the equipment into two independent, grounded circuits that are protected by minimum 11 A.
- Do not operate the device is not in an area of less than 10 m<sup>2</sup>.
- It is not allowed to store dry ice in fully sealed containers, because the vaporized gas would increase the pressure and would to an explosion.
- Do not touch dry ice with your bare hands. Use gloves and goggles.
- Cover the dry with a cloth or place it in a bag before you divide it with a hammer. So flying around of chips can be avoided.
- Never swallow fixed CO2.
- Place the dry ice never in any liquids to perform tests. This can cause serious injury.
- Disconnect the device from the mains when filling with water.
- If the water level is too high may spurt out boiling water when the dry ice is immersed. This can lead to burns.
- The water is heated up to the boiling point. Do not immerse your hand in the water. This can lead to burns.
- Note that condensation may form by the ejected fog. Operate the unit near other electrical equipment, power supplies, or objects which cannot be damaged by moisture because of this.
- The device should only be operated by trained and authorized personnel.
- The visibility in the room should not be below 10m.
- Never aim with the nozzle directly on people or objects.
- Make sure that in case of emergency the appropriate equipment is available securely.



#### 2. Introduction

Thank you for purchasing the dry ice machine X-1.

It is a compact and portable dry ice machine which is particularly suitable for ground fog.

The instrument housing is stable and made of corrosion polyethylene.

Prior to commissioning, you should read these instructions carefully and follow them.

#### 3. Control

- 1. Set the machine on a firm and level surface Open the lid and fill in 20 liters of water (hot or cold) a. Connect the device to the mains, when the red LED lights up, the machine heats up. If there is not enough water inside the machine, the machine will not heat.
- 2. The device has two heating elements. In order to both heating elements, you must connect the device to two independent circuits. The second power connection is made via the supplied P-Con cable (blue connector). The circuits must be protected with at least 11 A, respectively.
- 3. During the heating, the built-in basket should be locked in the highest position. The seat is secured using the black lever on the side of the machine.
- 4. After the heating process, which takes about 20-32 minutes, the device is ready for use.
- 5. The basket can be loaded with up to 8 kg of dry ice. Please note that, as a rule should fill out the dry ice 2/3 of the basket. Add the dry ice until the last moment, before the date on which it is required, added. Otherwise, the dry ice could previously vaporized by the temperature inside the appliance.
- 6. When you have added the dry, close and lock the lid.
- 7. In the moment when the fog is needed you must lower the basket by using the lateral lever. A full basket should not be fully immersed in hot water. Otherwise, could the transition of dry ice from solid to gaseous state, leading to a dangerous overpressure in the enclosure. Once the dry ice was immersed, emerges from ground fog. The speed increase by lowering the basket. To stop the fog emission, raise the basket again. By means of the lever, therefore, the fog output is controlled.
- 8. Before you empty the device it needs to cool. As long as the device is filled with water, it is not allowed to transport the device.



# 4. Technical data

Power supply	
Voltage	AC 220-240 V 50-60 Hz
Technical data	
Heating	5000 W (with both heating elements)
Ejection volume	300 m²
Tank volume	8 kg dry ice
War-up time	ca. 30 min
Hardware	
Dimensions (L/B/H)	460 x 400 x 400 mm
Weight	13,5 kg





## Importer:

# B & K Braun GmbH Industriestraße 2 D-76307 Karlsbad

info@bkbraun.com





