

FOG **SMOKE FACTORY** & HAZE

FOG AND HAZE GENERATORS

See the Performance

Introduction Manual



Type: Tour Hazer II

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Welcome.
Thank you for choosing a
SMOKE FACTORY - DEVICE.

The SMOKE FACTORY product range offers you a vast variety of complete solutions, both from an innovative and economical point of view. On the following pages we will provide you with a general overview of the TOUR HAZER II.

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SMOKE FACTORY

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1. Introduction

Well-engineered and innovative.

Fog Generators for more than 20 years.

SMOKE FACTORY GmbH is a medium-sized enterprise with growing international orientation.

Our fog generators are the result of many years of experience and continuous development in the field of stage machinery. The development- and construction-departments cooperate intensely to provide you with future- and practice-oriented solutions. The development-, construction- and production-operations are performed in our factory in Hanover, maintaining a high quality standard.

You acquired a **SMOKE-FACTORY** device that you will use simply and safely. Thank you for placing your trust in us. Read and understand the safety precautions before operating the machine. Failure to properly follow these instructions may lead to a fire, explosion or electrical shock.

Additionally we offer you both complete and customised solutions.

Our members of staff are highly qualified. They understand your needs and with their expertise and experience they have an overwhelmingly positive effect on our whole **SMOKE-FACTORY** team.

Please contact us if you wish further information about our fog generators. We provide high quality services and offer advice on choosing the proper fog generator.



Type: Tour Hazer II



Scotty II



Captain D



Data II



Factory Fan



Captain D Case



Enterprise TC4



Fan Fogger DMX 3



Spaceball-II



Fire Trainer

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2. Safety Instructions

Danger!

Follow these instructions to avoid fire, explosions or electrical shocks.



Warning!
Don't endanger yourself. Read the safety instructions thoroughly.

2.1 Danger of Burning

- Warning! Very hot steam escapes from the nozzle. There is a high danger of getting burnt. The smoke machine must be placed at least **150 cm** away from persons and heat-sensitive materials. Assure yourself that the housing of the fog generator cannot be touched by accident.
- The smoke machine must be placed at least **150 cm** away from inflammable materials.
- Occasionally very hot droplets of fluid may escape when in operation. Always keep sufficient safety distance to prevent damages of all kind.

2.2 General Safety

- Never open the machine and leave it unattended when connected to a power supply.
- Don't use the fog generator close to open fire, pyrotechnics or fireworks!
- The visibility must not be reduced to fewer than 200 cm. You are responsible for accidents due to missing visibility.
- Do not open the smoke machine if it is connected to the power supply (230 V).
- Do not swallow the fog fluid or avoid direct contact. Keep it away from children. In case of eye contact, rinse with a lot of water. Consult a doctor should you have accidentally swallowed some fluid.
- Spilled fluid or splashed fluid droplets can cause slip hazard. Mop up the fluid and dispose of it according to regulations. SMOKE FACTORY-fluid is completely watersoluble and biodegradable.
- Artificially-made fog can be produced in many different ways. The method used here to produce fog, with a device which works according to the vaporizer principle, is the most harmless one.
- No case has so far been reported in which a sound human being has been harmed because of using our device to produce artificial fog. However, this can only be guaranteed if the professional fog generators are used accordingly, i.e. at the correct vaporization temperatures as well as with the correctly mixed fog fluid.

WARNING!

People with health problems or problems of the respiratory tract or with an inclination for allergies should avoid any contact with artificially-made fog.

Damages that are caused by non-intended use and non-observance of this instruction manual are borne by the user himself. The manufacturer does not assume liability.

Modifications of security-relevant parts are strictly forbidden.

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3. Device and Parts Identification

Simple and safe.
We offer you complete solutions.

There isn't any solution that fulfills all expectations, but for each and every expectation there is a proper **SMOKE FACTORY**-fog generator.

Scotty II or Fire Trainer? It doesn't matter.
You get the equipment that makes the difference.

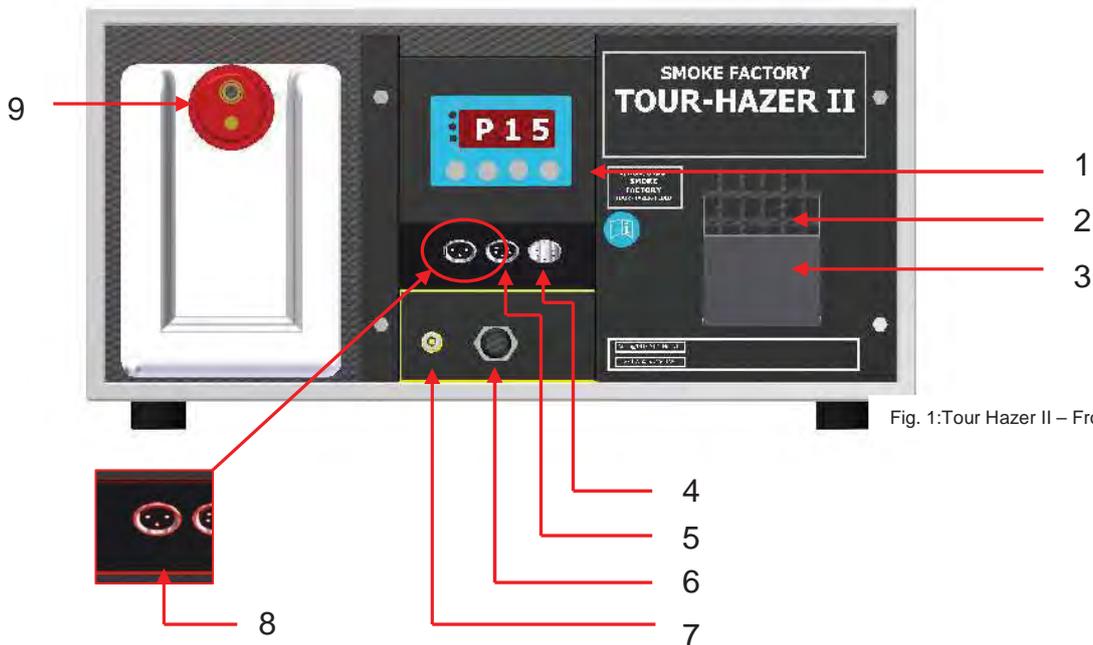


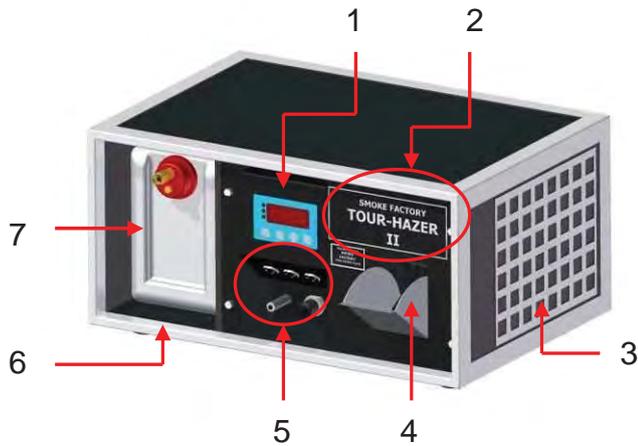
Fig. 1: Tour Hazer II – Front View

- | | |
|---|---|
| 1: Control panel for adjusting the DMX start address and the output | 6: Mains supply |
| 2: Fog emission | 7: Fluid tube inlet |
| 3: Air deflector (Determining direction) | 8: Analog input and Radio receiver-connection or Cable remote-control |
| 4: DMX-IN | 9: Fluidcan with canister lid and fast coupling connection. |
| 5: DMX-Out | |

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- 1: Control panel
- 2: Label (Type)
- 3: Safety guard (Entrapped air fort he fan)
- 4: Air deflector (rotatable)
- 5: Connection area: Power, Controls, Medium
- 6: Canister case
- 7: Fluid can

Fig. 2: Tour Hazer II - Isometric View



Pin-Configuration:
See page 11

Fig. 3: Tour Hazer II - Isometric View

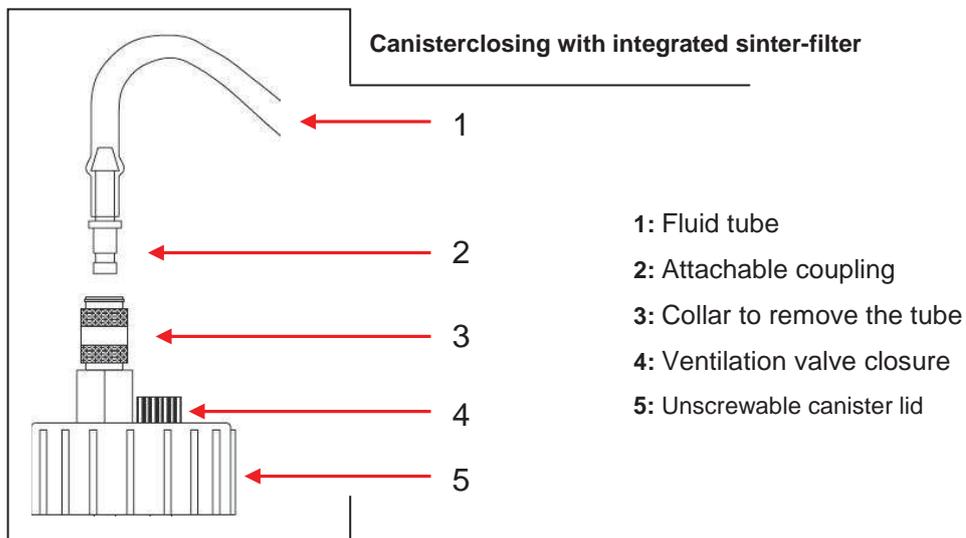


Fig. 4: Canisterclosing with integrated sinter-filter

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4. Commissioning

4.1 Selecting the location

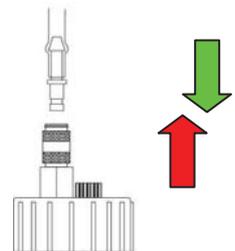
The location must be

- free from vibrations and shocks,
- free from dusty or polluted air,
- a non-flammable place or surrounding,
- well-ventilated with haze-free air,
- have an ambient operating temperature between +5°C and +45°C and
- a relative humidity below 80%.



4.2 Installing and Changing the Fluidbottle

- Disconnect the fluid tube from the lid by retracting the collar and removing the attachable coupling.
- Unscrew the canister lid of the empty container and screw it onto the new container.
- Push the attachable coupling into the collar, until you hear a click. Insert the new canister in a proper position.



4.3 Fogfluid

To guarantee trouble-free operation the special SMOKE FACTORY fluid must be used.

Use of other liquids will lead to clogging and void the manufacturer's warranty.

Don't use fluid older than five years.

Fog fluid cannot be stored for an indefinite period of time.

If you wish more information about fluids, don't hesitate to contact us or your local specialist dealer.



Fog fluid

4.4 Power Connection of the Tour Hazer II

Connect the power plug to a safety contact electrical outlet (DIN 49440/441).

Make sure the outlet has the correct voltage for your machine. (230V/50Hz).

A „P“ and two figures appear on the LED display (for instance **P 15**).



Fig. 5: Adjusting the performance of the fog generator

After approximately 60 sec. the Tour Hazer II is heated up and ready to be used. Press the Enter-button once (14) to start hazing. The green Active-LED (1) will light up. After a short interruption the hazing will begin. After another 30 sec the display dims itself automatically, but can be reactivated immediately by pressing any button.

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5. Operating Instructions

The optimal equipment of your SMOKE FACTORY fog generator is based upon your specific application.

The Tour Hazer II is a real Touring Hazer. With its 1500 W it is a truly powerful smoke machine. Due to the digital technique it is possible, to generate tiny clouds as well as roomfilling fog. The performance of the fog generator can easily be adjusted between 1 % and 99%.



5.1 Controls of the Tour Hazer II

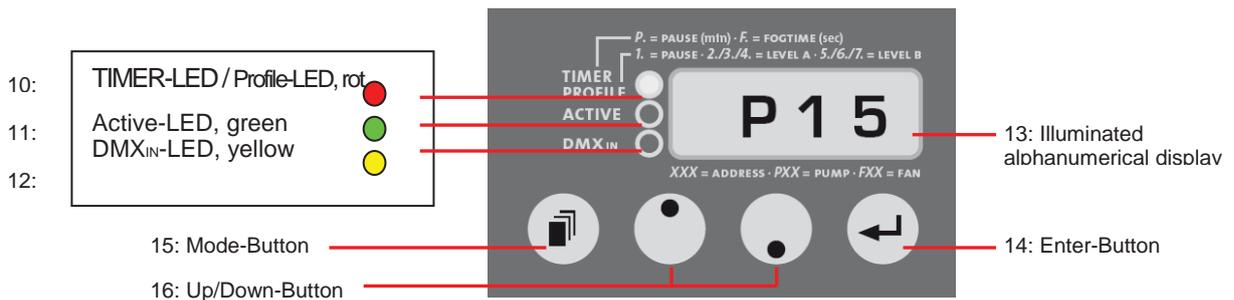


Fig. 6: Adjusting the performance of the fog generator

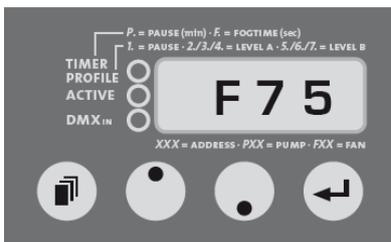


Fig. 10: Adjusting the output value for the fan.

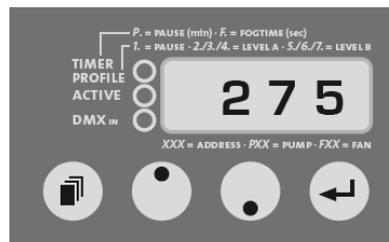


Fig. 11: Adjusting the DMX start address.

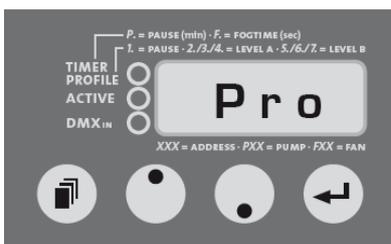


Fig.: 12: Switching to Profile mode

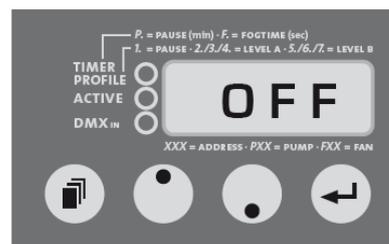


Fig.: 13: Turning off the device.

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5.2 Turning the device off



Fig. 7: Turning off the device

Press the Mode-Button (15)  until „OFF“ appears on the display. After approximately 60 sec the device automatically changes into the Backlash-mode, in order to cool down the evaporator and clean up the tubes and HE.



Fig. 8: Cooling down the device

Afterwards bars appear on the display moving top down. This is illustrating the cooling off of the device.



Fig. 9: Sufficiently cooled off.

If the evaporator is sufficiently cooled off, a red dot appears on the display that illustrates that there is power supply voltage.

Within 60 sec after turning off the DMX-Signal the device starts the Backlash mode.

Please ensure that the Tour Hazer II is not disconnected from the power supply too early. Otherwise the tubes and HE cannot be cleaned properly.

5.3 Control System

5.3.1 External Control

You may control the Tour Hazer II externally through the XLR sockets (4, 5, 8), see fig. 10.

In General:

DMX has always priority, i.e., as soon as the device is controlled via **DMX 512**, the values entered through DMX derogate the analog input.



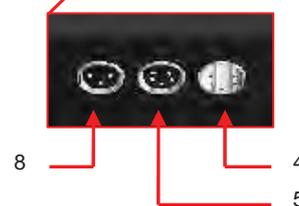
Fig. 14: Tour Hazer II – Front View

5.3.2 Operating via DMX 512

Connecting the **TOUR HAZER II** to a DMX desk, use the 5pol XLR socket beside the control panel. As soon as the machine receives a correct DMX signal, the yellow DMX LED will be lit (12). Please note:

The Tour Hazer II occupies two successive channels.

- 1st channel = pump
- 2nd channel = fan



- 4: DMX-IN
- 5: DMX-Out
- 8: DMX or analog input and radio remote connection depending on device.

12: DMXIN-LED, yellow



Fig. 15: Control panel/ DMX-Signal

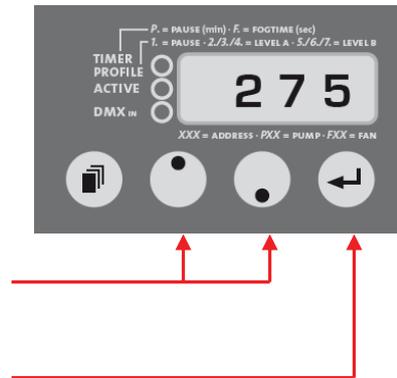
5.3.2.1 Adjusting the DMX start address

Press the Mode button  at the control panel until three figures appear on the LED display

Adjust the required start address (001-511) by pressing the Up or Down-button.

Save the start address by pressing the Enter button once.

Abb. 16: Control panel/ DMX-Signal



5.3.2.2 Adjusting the values for the pump and the fan

Adjustments after activating the Tour Hazer are not necessary. The performance of the pump as well as the fan can be adjusted via control panel from 1% to 99%.

5.3.3 Standalone mode

The **Smoke Factory – Hazer II** can be used in the standalone mode.

In this mode all data for the pump and the fan must be adjusted directly at the machine.



Fig. 17: Adjusting pump value

- P = Pumpe
- F = Fan

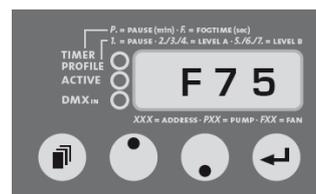
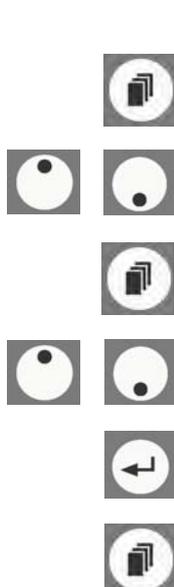


Fig. 18: Adjusting fan value



Press the Mode button  at the control panel until a “P” and two figures appear on the LED display

Adjust the desired data (1 - 99%) by pressing the Up/Down-Button.

Press the Mode button again  until a „F“ and two figures appear on the display.

Adjust the desired data (1 - 99%) by pressing the Up/Down-Button.

By pressing the Enter-Button you turn off the smoke machine and the optional fan.

Pressing again the Mode-button  leads you to the options

5.3.4 „Timer“ Haze-Density Control System (HDCS)

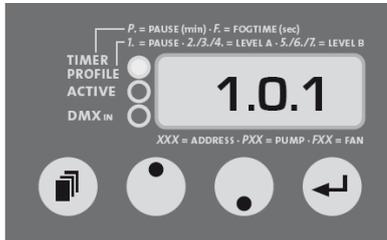


Fig. 19: Adjusting the Pre-Runtime

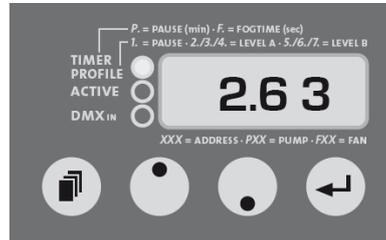


Fig. 20: Adjusting the pump value.

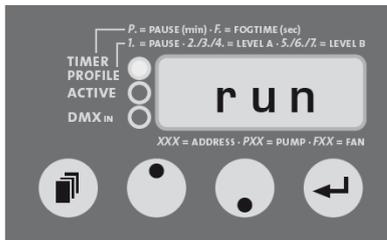


Fig. 21: Startuing the profile



Abb. 22: Exiting the profile

With the **HDCS** it is possible to specify a certain user profile.

Two levels (A and B) can be regulated, the haze time and wait time can be adjusted in minutes the pump and the fan output can be adjusted in percent.

Level A = Menu Item 2, 3, 4

Level B = Menu Item 5, 6, 7

Additionally you can adjust the hazing time (Menu Item 1).

Example: The device has to start hazing after 30 minutes (Menu Item 1). The stage has to be hazed for a period of 10 minutes. To fulfil these requirements a high pump and fan output is required as well as a hazing time of 10 minutes (Menu Item 2, 3 and 4). After 10 minutes the pump and the fan have to be turned off and the stage must be hazed another one hour (Menu Items 5, 6 and 7).

Following menu items can be adjusted

1. Pause (Pre-Runtime)	0 - 99 min	5. Pump (level B)	1 - 99 %
2. Pump (level A)	1 - 99 %	6. Fan (level B)	1 - 99 %
3. Fan (level A)	1 - 99 %	7. Run-Time (level B)	0 - 99 min
4. Run-Time (level A)	0 - 99 min		



Press and hold the Mode button on the control panel  until “**Pro**” appears on the display (see fig. 12)



Press and hold the menu button once to get to the HDCS-Menu Item. The red Timer/Profile-LED is lit up.



You can adjust the variables according to the menu items 1 - 7 (see above table), by pressing the Mode button until you reach the required function and adjusting the values with the Up/Down-buttons. 



Press and hold the mode button until „run“ appears on the display (fig. 21). Pressing and holding the Enter-buttons starts the specifically created user profile.

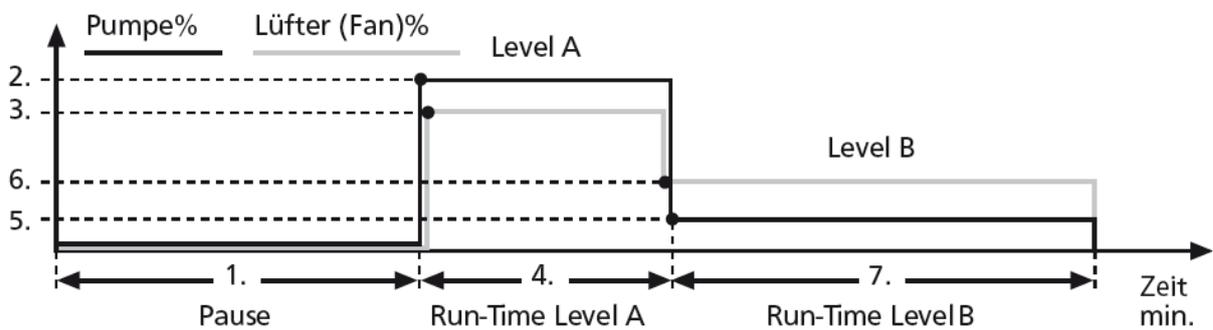
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The Timer/Profile-LED [10] blinks. The green Active-LED [11] lights up, as soon as the adjusted pause (Pre-Runtime) has passed and Level A is started. The user profile can be also started via the remotecontrol.



To return to the standard menu, press and hold the Mode-  button until you see „ESC“ on the display (Fig. 22) and press the Enter-button.



5.4 Autostart

If the Timer is activated but the device disconnected from the mains supply, Tour Hazer II will start automatically in the Timer Mode with the pre-adjusted values as soon as it is reconnected.

5.5 Pin-Configuration

DMX:

Pin 1 = Ground (Mass)
Pin 2 = DMX-
Pin 3 = DMX+

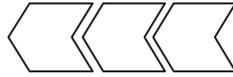
3pol-XLR (analog):

Pin 1 = Ground (Mass)
Pin 2 = 0-10 V + DC in
Pin 3 = 12 V + DC out
max. 50mA

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6. Maintenance



- Avoid overheating of the smoke machine by high operating temperatures. Don't let spotlights directly shine on the device.
- Do not let the smoke machine run without any fluid as the pump will run dry.
- Some droplets of condensation will form at the nozzle. That is normal and not a malfunction. Remove the fluid droplets as they can destroy the electronics.
- Check the state of the sinter-filter from time to time and clean or replace it when necessary.

CAUTION: The evaporator of our devices must not be cleaned, as the cleaning substances can fundamentally damage the evaporator. This leads to a loss of the warranty.

- Clean the fluid bottle before refilling it to avoid dirt that can cause malfunctions.
- If you install the device permanently you need to maintain a smoke- and fog-free air supply. Cooling air with concentrated fog can condensate in the device and lead to humidity damages.

BEWARE: Remove the droplets only if the devices is cooled of! Don't expose you to the Danger of burning.

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7. Trouble-Shooting

The Tour Hazer II does not produce any haze

- Check the external control
- Check the power supply
- Check, if there is enough fluid in the canister
- Check if the connection is permeable
- Check if fluid tube is unclean



The Tour Hazer II hazes uncontrolledly

- Check the external control
- Check the humidity (High humidity can cause uncontrolled hazing)
- Sinterfilter in the canister clogged?



The Tour Hazer II deactivates itself

The over temperature protection device is activated.
Remove external heat sources, to maintain air supply. The device will reactivate as soon as the normal operating temperature is reached.



Loud humming noise during hazing

- The pump runs dry. Avoid generating fog without fluid.
Refill fluid!
- Check fluid tube, disconnect and reconnect.
- Fluid tube bent down or defect?



Error report E-4 on the display

- The machine is getting too hot. The heating switches off and the machine cools down.
- Solution: Disconnect the machine from the mains supply for a moment and then re-connect it.



Error report E-8 on the display

- The heating element is clogged
- Please return the Tour Hazer II for maintenance.



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8. Technical Specifications

Functional principle

Steam Generator without compressor

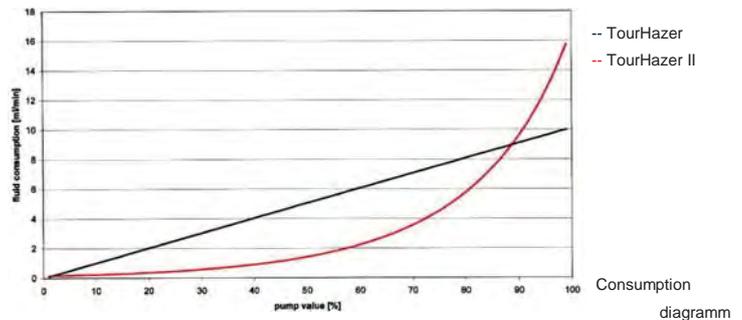
Electrical power

1500 W

Supply voltage

230V/50Hz, also available with 120V/60 Hz
And with 90V/60 Hz

Fluid consumption



Capacity of fluid bottle

5 Litres

Fog output

Adjustable from 1 to 99 %, 1% - steps

Control options

DMX 512
0-10 V Analog
Timer
Standalone
XLR-Remote (Optional)

Heating-up time

Approximately 1 minute

Temperature controlling

Microprocessor

Overheating protection

Heater block with thermostat

Protection type

IP 41 according to DIN 40050-9

Working temperature

5°C to +45 °C

Dimensions (WxHxL)

533 mm x 248 mm x 442 mm

Weight w/o fluid

Approximately 18 kg

Accessories

Radio remote and cable remote control

Scope of delivery

Tour Hazer II, instruction manual, canister lid for 5 litre can,
power connection

9. Warranty Conditions

Effective only for the Federal Republic of Germany

SMOKE FACTORY grants you warranty for the "Tour Hazer II" according to the following conditions

1. Free of charge, subject to the following conditions (No. 2 - 6) we will repair any defect or fault in the unit if it is caused by a proven factory fault and has been advised immediately after appearance and within 6 months of delivery to the end user. Insignificant deviations of the regular production quality does not guarantee replacement rights, nor do faults or defects caused by water, by generally abnormal environment conditions or Force Majeure.
2. Guarantee Service will be done in the following way: Faulty parts will be repaired or replaced according to our choice with the correct parts. Faulty units have to be brought to us or our service centres or to be sent to us or our service centres at customer's expenses. The invoice and/or receipt showing the purchase date and the serial number has to come with the faulty unit, otherwise this will not be guarantee service. Replaced parts become our property.
3. The customer loses all rights for guarantee services, if any repairs or adjustments are done to the units by unauthorized persons and/or if spare parts are used which are not approved by us. The right of guarantee service is also lost if fluids other than the original SMOKE FACTORY-fluid have been used or if units are sent to us with full fluid bottles. Also non compliance with the instructions in this manual or mistakes by incorrect handling/treating of the machine will lead to a loss of guarantee and also any faults and damages caused by undue force.
4. Carrying costs caused to warranty services are borne by the customer himself.
5. Guarantee services do not cause an extension of the guarantee time or the start of a new guarantee time. The warranty for replaced parts ends with the guarantee time of the whole device.
6. If a defect/fault can not be repaired by us in a satisfactory time, we will, within 6 months after sale of the unit, on choice of the customer, either:
 - replace the whole unit for free or
 - refund the lesser value or
 - take back the whole unit and refund the purchase price, but not more than the usual market price at the time of the refund.
7. Further claims, especially for damages, losses etc. outside the unit are excluded, if the liability is not statutory.

Outside the Federal Republic of Germany the warranty conditions of our local agencies take effect. Our local agencies in and outside the Federal Republic of Germany will provide you with the warranty conditions any time. In case you send the TOUR HAZER II make sure that the fluid is removed from the bottle.

See the Performance

We advise you

We help you

We provide you with information material fast und
reliably

Service and Contact

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Design & Arrangement / www.devtecs.de

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