

**Paint-Sample  
Dryer  
ST-01**



**Operating Manual for Paint-Sample Dryer ST-01**

**Declaration of Conformity According to DIN EN 45014**

Manufacturer: B-TEC GmbH  
Zunftweg 6-8  
D-31303 Burgdorf / Ehlershausen



Herewith, we declare that the machines and marketed models described in the following conform in conception and in design to the relevant fundamental safety and health requirements of the applicable EU directives.

**All of our manufactured or assembled parts conform to the listed regulations.**

If you change the machine without our explicit agreement, this declaration will be herewith invalidated.

Product type: Paint-sample dryer

Type designation: **ST-01**

Serial-no.:

Construction year: **2015**

The following harmonizing standards have been used:

- Safety of machinery, equipment and facilities: **DIN EN ISO 12100 : 2011**
- General rules and safety requirements for pneumatic-systems: **DIN EN ISO 4414**

Special national norms are applied:

- Safety- and health signs at workplace: **BGV A8**

Technical Parameters:

Rated voltage:	120 V
Rated frequency:	60 Hz
Rated power input:	350 W
Protection class:	I
Degree of protection:	IPX0

Tested according to: **EN 60335-1/A2:2006, EN60335-2-30/A2:2007, EN50366/A1:2006**

This EC-Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 5006/95/EC relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of directive.

Responsibility for technical documents: Hans-Joachim Bödrich, Michael Bellroth

Address: Refer to manufacturer's address

Location/Date/Manufacturer's signature. :

Function of the signer: Managing director

Hannover, 02.01.2015

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## 1. Important Information

Thank you for purchasing this B-TEC Systems infrared paint curing unit ST-01. Please note, the unit has a rating plate attached which includes the model and serial number. Should you ever need service or parts, please provide that information when calling B-TEC Systems or your distributor.

This shortwave infrared paint sample dryer is specially made for drying automotive refinish coatings, including waterborne. Its energy heats the coating by using both infrared, air movement, or both. Each bake cycle only costs a few cents, making it highly efficient. The unit is built to last and its design offers the user the fastest way of drying painted test cards, ready to match.



**Read this document carefully before commissioning and keep it safe for future reference**

B-TEC Systems devices and machines are only to be used for the purpose explicitly described below. Any other use is in contrast with the regulations. The manufacturer cannot be held liable for damages resulting from such non authorized use.

The intended use of this equipment is the drying of paint samples, including waterborne coatings utilizing infrared and air movement. Improper use can endanger the health of the operator and of others, causing damage to the dryer itself or to other materials and assets.

### 1.1 Explanation of the Symbols

#### Attention!



You will find this symbol whenever attention is drawn to situations in which danger to life can arise due to or during incorrect or improper operation. Pay special attention to these symbols and act carefully.

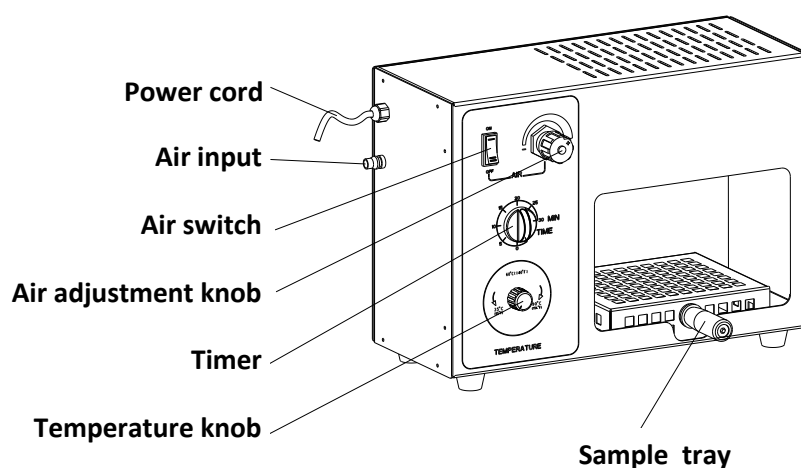
#### Notice!



You will find this symbol in the operating manual whenever your attention shall be drawn to correct work procedures, economic ways of operation or when the machines can be damaged by incorrect operation.

## 2. Technical Description of the Machine

The machine "ST-01" is made for fast drying of paint-samples using infrared energy / heat and air movement. The duration and intensity of drying can be adjusted. The drying-time can be set by the timer and the temperature the infrared lamp produces can be determined by a heat controller. The speed of the air can also be adjusted to the desired level. The compressed air and the infrared lamp can be used together or separately.



### 2.1 Technical Parameters

Model:	ST-01
Operating pressure compressed-air connection:	3-5 bar
Rated voltage:	120 V
Rated frequency:	60 Hz
Power of the emitter:	300 W
Timing range of the timer:	30 min
Weight:	6,1 kg
Size (W x H x D )	16" x 12" x 8" inches

- B-Tec Systems reserve the right to make technical changes without notice -

### 3. Safety Regulations

B-TEC Systems machines are operationally safe with state of the art construction. Due to the nature of the curing process, proper use of the equipment is necessary. With improper or unsafe use, there are parts that cannot be protected without impairing operability and functionality. Improper use of the dryer can be endanger the health of operator and of others and cause damage to the dryer itself or to other materials and assets. B-TEC Systems is not liable for any damages resulting from improper or incorrect use.

#### 3.1 Safety- and Advisory Notes

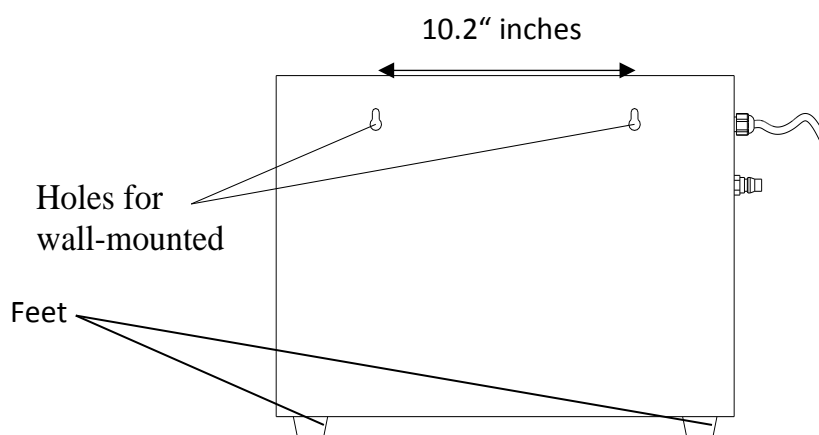
- ST-01 Dryer is not explosion proof. Do not use it in a spray booth, mixing room or any volatile area.
- Ensure that all necessary protection is worn (gloves, eye protection, airway protection, whole body protection).



- Hands have to be washed thoroughly before eating or drinking
- Do not use this equipment when it is wet or damp. Water coming into the unit may lead to electric shock or damage to the equipment.
- This equipment is not for outdoor use.
- Do not cover the air vents, as overheating could occur
- Do not mount the machine on a wooden or inflammable surface.
- Make use of local safety and accident prevention regulations during the operation of the machine.
- The machine must be grounded.
- Keep the operating manual available, near to the machine.
- If the power cable is damaged, please ask the manufacturer, service provider or specialist to replace it to avoid injury and damage.
- When not in use, ensure that the power is off and unit unplugged.

#### 4. Installation

The unit can be used either wall mounted or on a suitable bench / flat surface. At the back of the ST-01, there are two holes a distance of 10.2" inches apart for a wall mounting. To avoid overheating and fire, do not mount the unit on a wooden or flammable wall. If you don't want it wall mounted, you can put the machine on a suitable sturdy bench / table.



##### Compressed Air Connection

One compressed air connection has to be provided by the plant, depending on the machine:



**Operating pressure max. : 5 bar ; 72.5 psi**

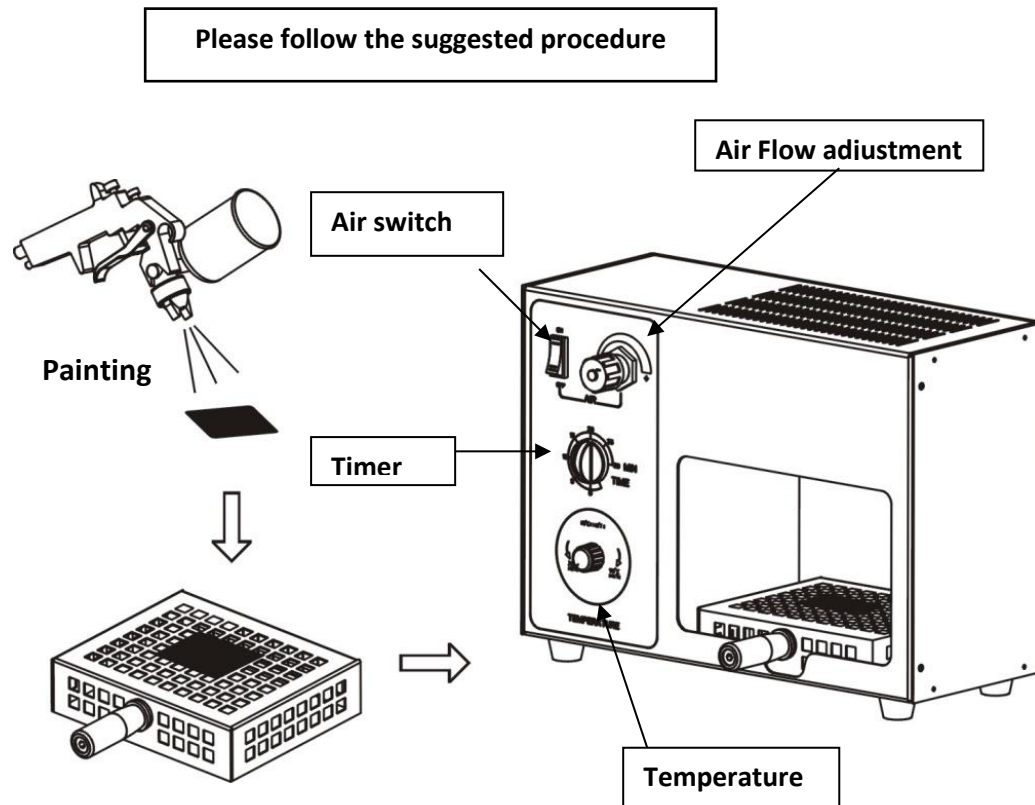
**Operating pressure min. : 3 bar ; 43.5 psi**



A pressure-regulating valve has to be used if the compressed air connections do not have the required operating pressures. **Use only dry and oil-free air!!**

After proper installation and connection to the compressed air supply, the ST-01 unit can be operated.

## 5. Operating Instructions



### Drying Tray

- Spray out your test card as normal, in the spray booth.
- Place the test card in the drying tray
- Set up your desired drying sequence

#### For waterborne base coat

- Turn the temperature control to high
- Turn on the air switch and adjust the air flow rate to max.
- Set the timer at 2 minutes and your drying cycle will start. (You may find that the base coat has matted out before the end of this cycle) The paint is being dried using both infrared and air.

When the drying cycle is completed, the unit will stop automatically and a bell / ping will sound.

#### For top coat (Clear or single stage)

- Turn the temperature control to high
- Set the timer for 3 minutes and the curing cycle will start. The sample is now being cured using only infrared

When the drying cycle is completed, the unit will stop automatically and a bell / ping will sound.

Allow clear or top coat to cool before testing.

Optional: Turn temperature to zero. Turn air flow to max and run for 30 seconds to force cool the paint sample.





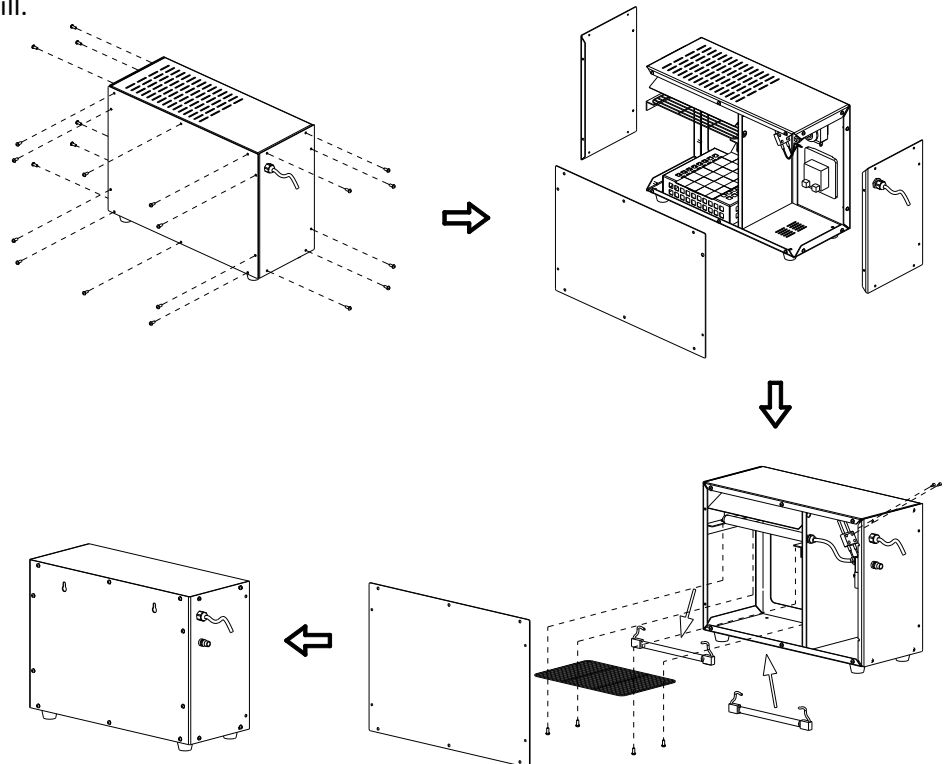
**Before conducting care and maintenance, be sure that the unit is disconnected from the electricity and air supply. Also ensure that the unit has cooled down.**

## 6. Care and Maintenance

- Regular cleaning of emitters / tubes and reflector panel should be done by using a piece of soft cloth or cotton with solvent. Do not start the emitter / tube until the solvent has evaporated, otherwise it may lead to a fire / explosion.
- For replacement emitters / tubes, contact your distributor or the B-TEC Systems service center.

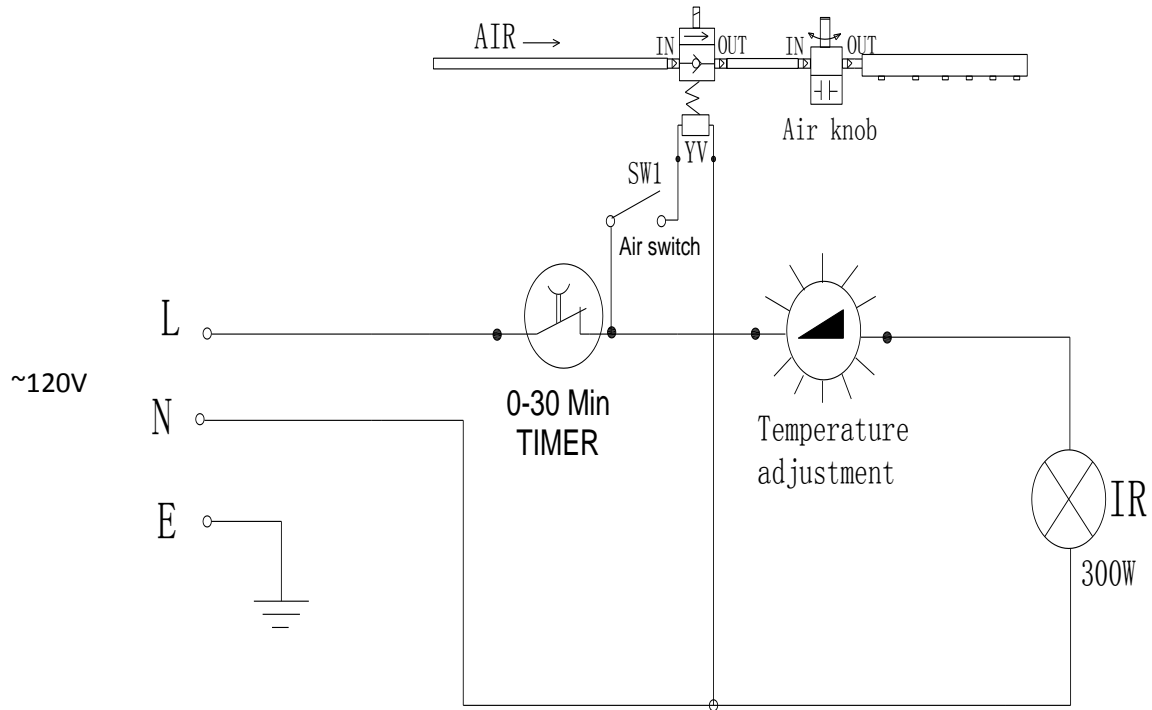
### 6.1 Replacement of Emitter Lamp Tube

1. Disconnect both the electric and air supply from the unit.
2. Remove the screws on the side and back panels of the unit and remove the panels.
3. Remove the screws of the protective grill in front of the emitter and take out the protective grill.
4. Loosen the two leads of the emitter / tube and remove it.
5. Fit the new emitter / tube and connect the leads after checking you have the correct part.
6. Use a piece of soft cloth or cotton to clean the reflector panel and the emitter / tube with solvent.
7. Refit the protective grill.
8. Refit the panels.



**Important: Wait 5 minutes before starting the unit to ensure that any solvent or solvent has evaporated**

## 7. Wiring Diagram



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B-TEC USA, LLC (480) 621-5304 [www.bteccleaners.com](http://www.bteccleaners.com)