



BD70 INDUSTRIAL DEHUMIDIFIER USER MANUAL



Drawing No.	:- TPC323
Issue	:- 5
Date	:- 29/08/17

UNPACKING

Thank you for deciding to purchase an Ebac Industrial dehumidifier. Like the many tens of thousands of people who have already bought an Ebac dehumidifier we are confident you will find it is the most effective answer to the problem of condensation and dampness related problems

IMPORTANT

Your Industrial dehumidifier is packed in a plastic wrapping – please ensure that it is disposed of safely and where it will not be a danger to children.

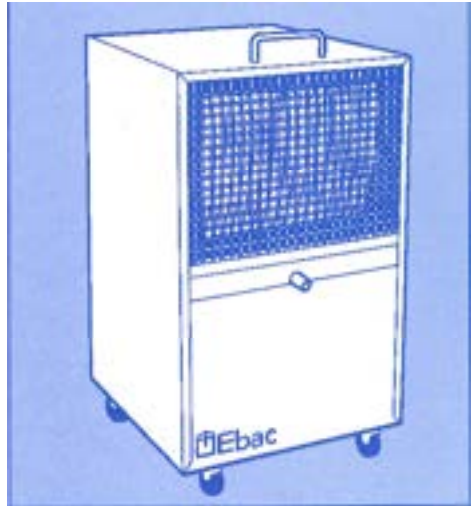
INTRODUCTION

Carefully remove the BD70 dehumidifier unit from its transit box and visually check for any signs of transit damage. If there is evidence of damage DO NOT attempt to operate the unit, call your supplier for advice. Retain the packaging for further use, or dispose of it considerately.

This user manual tells you how to use the BD70 dehumidifier. Please read it thoroughly before operating the dehumidifier. If you have any questions about the unit please contact our Customer Service Department at the address shown at the back of this section or phone 01388 664400.

Dehumidifiers remove moisture from the air circulating through it.

Continuous operation reduces the relative humidity of the air and this helps prevent rust, rot, mould, mildew and condensation within the room, or other enclosed space where the dehumidifier is used.



A dehumidifier consists of a motor – compressor unit, a refrigerant condenser, an air circulating fan, a refrigerated surface, a means of collecting and disposing of the condensed moisture and a cabinet to house these components.

GENERAL

Ebac industrial dehumidifiers can be stored and transported in the horizontal or vertical position. To operate, stand the unit upright, connect power and it is ready for operation.

When a generator is used to supply the power, it is essential to check the minimum kva required in the technical section within this manual. The generator must be started before connection is made to the dehumidifier.

OPERATION

The fan draws moist air through the refrigerated surface which cools it below it's dew point, removing moisture which is collected and lead away. The cool air then passes over the hot condenser, where it is reheated. With the addition of the other radiated heat the air is discharged into the room at a higher temperature but a lower relative humidity than when the air entered the unit. Continuous circulation of the room air through the dehumidifier unit gradually reduces the relative humidity in the room.

The BD70 Industrial humidifier is a robust, compact unit designed to control the humidity in the enclosed space in which it is placed.

The unit is thermally protected and will switch off for a period if the maximum operating temperature of 35°C is exceeded.

MAINS PLUG WIRING INFORMATION FOR EBAC INDUSTRIAL DEHUMIDIFIERS

110V PLUG BS4343/IEC309-2



13 AMP FUSE 230V PLUG BS1363



IMPORTANT

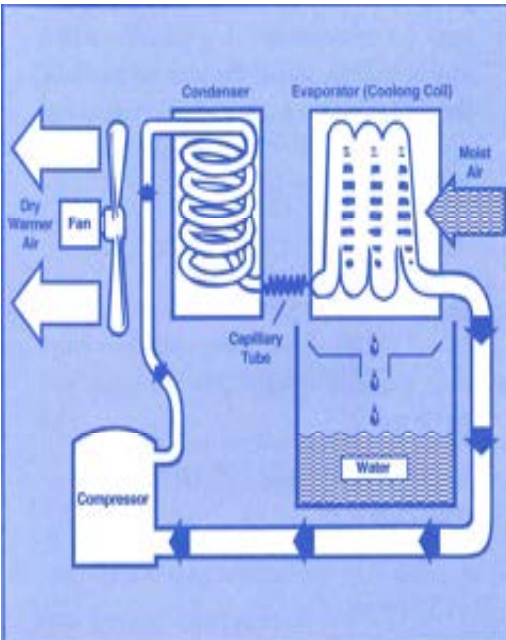
The wires in the mains lead are coloured and must be connected as shown in the diagrams above by a qualified electrician.

ELECTRICAL CONNECTIONS

The wire which is coloured Green and Yellow must be connected to the terminal marked E or by the Earth Symbol. The wire which is coloured Blue must be connected to the terminal in the plug which is marked with the letters N or coloured Black. The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Red.

CHANGING THE FUSE

13 amp fuses that are ASTA approved to BS1362 should only be used.



BASIC STEPS

Ensure that all EXTERNAL doors and windows are CLOSED. Where no doors or windows are fitted, temporarily screen off the openings.

POSITIONING

For small areas position centrally in the area to be dried. For larger areas such as open plan buildings, offices or factories, a number of dryers may be required, in such cases they should be spaced evenly around the area. Ensure that no unit is positioned in such a way that it blows directly into another.

For private houses or flats, position the dryer on one floor at a time, starting at the lowest floor, closing all internal doors on the floor previously dried. Continue until all floor levels have been dried.

Note when a particular damp patch is to be dried out the air outlet grille should be directed towards that area but should NEVER be closer than 1m to the surface. At no time should the inlet or outlet grilles be covered or obstructed.

DRAINAGE

Under most operating conditions water will be produced continuously and it is important that it is drained away correctly and not allowed to spill. Any spillage will evaporate and will, therefore, have to be recycled through the dryer again, which in effect, only prolongs the drying period.

PORTABLE CONTAINERS

Position a closed top container underneath the water discharge pipe (approximately 8 litres capacity). Place a short length of pipe one end over the discharge pipe and the other end in the container. Use a transparent container, this will enable you to check the level of water and so prevent it from overflowing. As the unit will be running for long periods of time, a regular check should be made on the container water level.

PERMANENT DRAINAGE

Connect a flexible hose to the water discharge pipe of sufficient length so that it will reach a permanent drain. The gravity head created will allow for a gradual fall from the unit to the drain. Ensure that the hose is free of kinks and is not allowed to rise at any point above the level of the discharge point from the dehumidifier. Any air locks which may be created, should the level be raised by the hose passing over obstructions, could cause the water to "back up" the hose and spill from the dryer.

SWITCHING ON

Check the voltage selection switch is set to the correct voltage. (Dual voltage machines only) Plug the unit into the power supply and switch on.

SWITCHING OFF

Turn off the power supply and disconnect.

SPECIAL FEATURES

DEFROST OPERATION

If the ambient temperature of the room the dehumidifier is conditioning, falls below 15°C ice will form on the evaporator coil as the air passes over it.

Over a period of time this build up of ice will effect the efficiency of the dehumidifier on it's ability to maintain the required set conditions within the room.

The BD70 is therefore fitted with a defrost control device. This defrost control device is timed to operate every 55 minutes for a period of 5 minutes.

During the defrost cycle some of the high pressure hot gas from the compressor is diverted into the evaporator coil where it melts the ice which has formed on the evaporator coil.

DUAL VOLTAGE MODELS

The BD70 dehumidifier unit is fitted with a transformer which will allow the unit to operate on either 110volts or 230volts 1ph 50hz power supply.

This unit is fitted with a 4A manual reset circuit breaker.

All electrical components within the dehumidifier are rated for 110volts, for safety reasons. The Voltage change over (selector switch) switch, can be found on the electrical panel at the rear of the unit (air outlet). Remove the cover for access.



CONTACTING EBAC CUSTOMER SERVICES

If you have any further queries please contact the Ebac Customer Services Department on 01388 664400 and have the following information to hand:

- Part number and Serial number of the machine (located on the rating plate at the front of the machine)
- Full name and address
- Where your machine was purchased

SAFETY

- **DO NOT** USE THIS UNIT IF THE CABINET OR POWER CORD IS DAMAGED.
- **DO NOT** INSERT OBJECTS INTO ANY OF THE GRILLES ON THE MACHINE.
- **DO NOT** COVER OR OBSTRUCT AIRFLOW FROM THE GRILLES.
- **DO NOT** OPERATE THE UNIT WITH THE COVERS REMOVED.
- **DO NOT** ATTEMPT ANY REPAIRS SHOULD THE UNNIT FAIL TO OPERATE.
- **DO NOT** STAND ON THE UNNIT.
- **DO NOT** ATTEMPT TO LIFT HEAVY UNITS UNASSISTED.
- **DO** CHECK THE PLUG ON THE EQUIPMENT MATCHES THE SUPPLY.
- **DO** USE THIS UNIT ONLY FOR THE PURPOSE FOR WHICH IT WAS DESIGNED.
- **DO** ENSURE THE POWER CORD AND SUPPLY IS EARTHED CORRECTLY.
- **DO** CHECK THE VOLTAGE SLECTION BEFORE ATTEMPTING TO POWER THE UNNIT. (DUAL VOLTAGE UNNITS ONLY)
- **DO** USE A RESIDUAL CURRENT DEVICE “RCD” WHERE POSSIBLE.

SERVICE

The machine should be services by qualified Ebac personnel or other persons having technical competence in servicing refrigeration equipment following the instructions in the Ebac Service Manual.

SPARES

Full spare parts listings and Ebac Service Manuals are available upon request by contacting one of the Ebac Service Centres listed in this manual.

OZONE FRIENDLY

The gas which is used in the hermetically sealed refrigeration circuit is R134a, which is an HFC and therefore has a zero ozone depletion factor. However under NO circumstances should the gas be released into the atmosphere. The unit should be serviced by trained personnel who will re-claim any of the removed gas.

DISPOSAL OF THE UNIT

At the end of the machines working life the refrigerant must be disposed of in the correct manner.

TECHNICAL SPECIFICATIONS

	1016900 UK	1022900 UK
Height	570	570
Width	325	325
Depth	345	345
Weight	25	27
Airflow	6.5	6.5
Voltage	230	110/2
Phase	1	1
Frequency	50	50
Maximum Power	0.46	0.46
Maximum Current	2	4 / 2
Fuse Rating	5	5 / 13
Effective Volume	85	85
Refrigerant Type	R134a	R134a
Refrigerant Quantity	0.170	0.170
Normal Extraction	4.5	4.5
Maximum Extraction	20	20
Noise Level:	Less than 50dba when running	
Finish:	Epoxy Coated Zintec Steel	
Mobility:	Light in construction and easily positioned	
Normal:	Rated Extraction at 15°C 65% RH Conditions	
Maximum:	Rated Extraction at 45°C 99% RH Conditions	

This machine has been manufactured in the United Kingdom

*"This product contains fluorinated greenhouse gases covered by the Kyoto Protocol.
The refrigeration system is hermetically sealed.*

*The Global Warming Potential (GWP) of refrigerants used in products manufactured
by Ebac Industrial Products Ltd is as follows*

*R134a – 1300
R407c – 1610*

*For type and weight of refrigerant contained in this unit, please refer to the product
data label"*

WARNINGS

This appliance can be used by children from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the application in a safe way and understand the hazards involved.

Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.

If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid hazard.

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. The refrigeration system is hermetically sealed.

The Global Warming Potential (GWP) of refrigerants used in products manufactured by Ebac Industrial Products Ltd is as follows

R134a – 1300

R407c – 1610

For type and weight of refrigerant contained in this unit, please refer to the product data label

Due to the high pressures within the refrigeration circuit, under no circumstances must direct heat be applied to the evaporator coil in an attempt to remove the build-up of ice.

No attempt should be made to cut open any part of the refrigeration circuit due to high pressures and gas involved.

If the unit is switched off at the mains power supply for any reason, the unit must be allowed to stand at rest for at least three minutes before restarting.



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