

# OXYGEN CONCENTRATOR

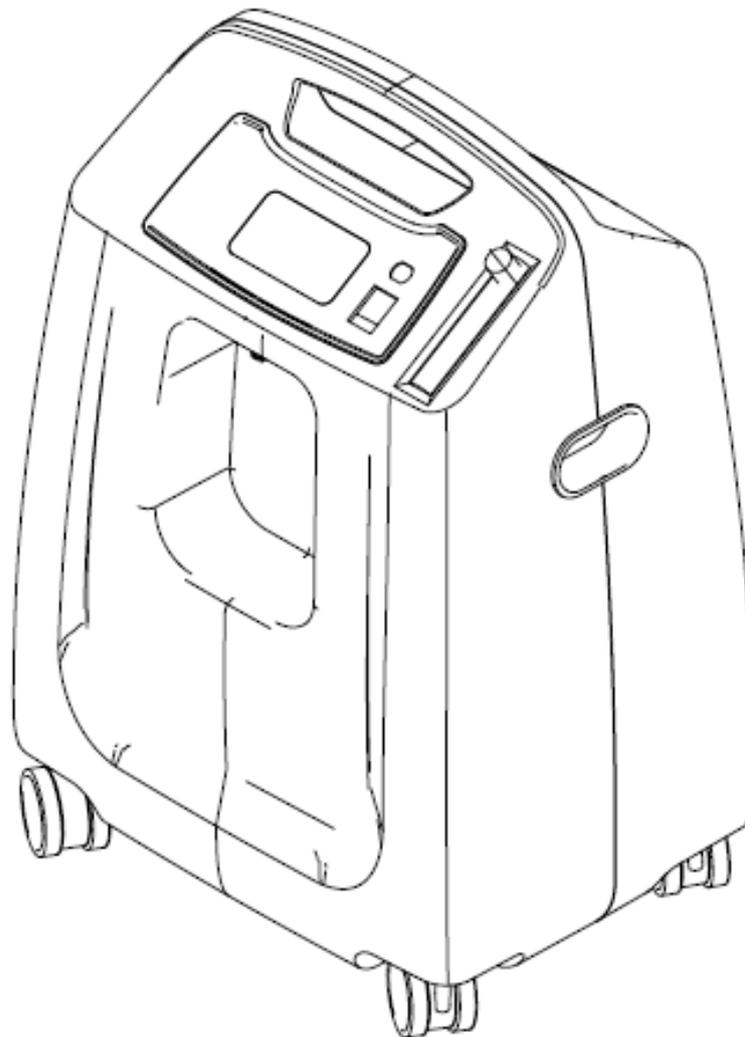
Model: HM-SERIES

## Instruction Guide

**WARNING - Read instruction guide before operating this equipment.**



**DANGER – DO NOT SMOKE NEAR THE MACHINE**



## TABLE OF CONTENTS

IMPORTANT SAFEGUARDS.....	3
HOW THE HM SERIES OXYGEN CONCENTRATOR WORKS.....	4
IMPORTANT PARTS OF THE CONCENTRATOR .....	4
FRONT VIEW OF THE HM SERIES.....	5
BACK VIEW OF THE HM SERIES .....	6
SETTING UP THE OXYGEN CONCENTRATOR.....	7
BEFORE OPERATING THE OXYGEN CONCENTRATOR .....	7
OPERATING THE HM SERIES CONCENTRATOR.....	8
CLEANING THE HM SERIES OXYGEN CONCENTRATOR.....	9
MINOR TROUBLESHOOTING .....	11
SPECIFICATIONS.....	12
SYMBOLS .....	13
PICTURE HM5 – 5AH.....	14
PICTURE HM8 – 8AH.....	15

## INDICATIONS FOR USE

The HM SERIES Oxygen Concentrator is intended for use as an oxygen concentrator to provide flow oxygen for torches for goldsmiths, jewelers and similar applications.



**WARNING – NOT TO BE USED FOR MEDICAL USE**

## IMPORTANT SAFEGUARDS

 Read this entire guide before using your HM SERIES concentrator. Important information is highlighted by these terms throughout this guide:

**DANGER** Urgent safety information for hazards that will cause serious injury or death.

**WARNING** Important safety information for hazards that might cause serious injury.

**CAUTION** Information for preventing damage to the product.

**NOTE** Information to which you should pay special attention.

Important safeguards are indicated throughout this guide; pay special attention to all safety information.



**DANGER - NO SMOKING**

## INTRODUCTION

This instruction guide will acquaint you with the HM SERIES oxygen concentrator. Make sure that you read and understand this guide before operating the unit. Important safeguards are indicated throughout this guide; pay special attention to all safety information. Contact your provider if you have any questions.



### DANGER

**Oxygen causes rapid burning. Do not use within 1,5 meter (approx 5 feet) of hot or sparking objects. Always keep naked flames away from the oxygen concentrator. Do not smoke while your oxygen concentrator is operating, or when you are near a person using the machine.**

## HOW THE HM SERIES OXYGEN CONCENTRATOR WORKS

Oxygen concentrators are the most reliable, efficient, and convenient source of supplemental oxygen available today. The oxygen concentrator is electrically operated. The unit separates oxygen from room air which allows high-purity supplemental oxygen to be delivered through the oxygen outlet. Although the concentrator filters the oxygen in a room, it will not affect the normal amount of oxygen in the room.

## IMPORTANT PARTS OF THE CONCENTRATOR

Please take time to familiarize yourself with your HM SERIES oxygen concentrator before operating.

### Checklist for Unpacking

Before using this product, make sure you have the following items:

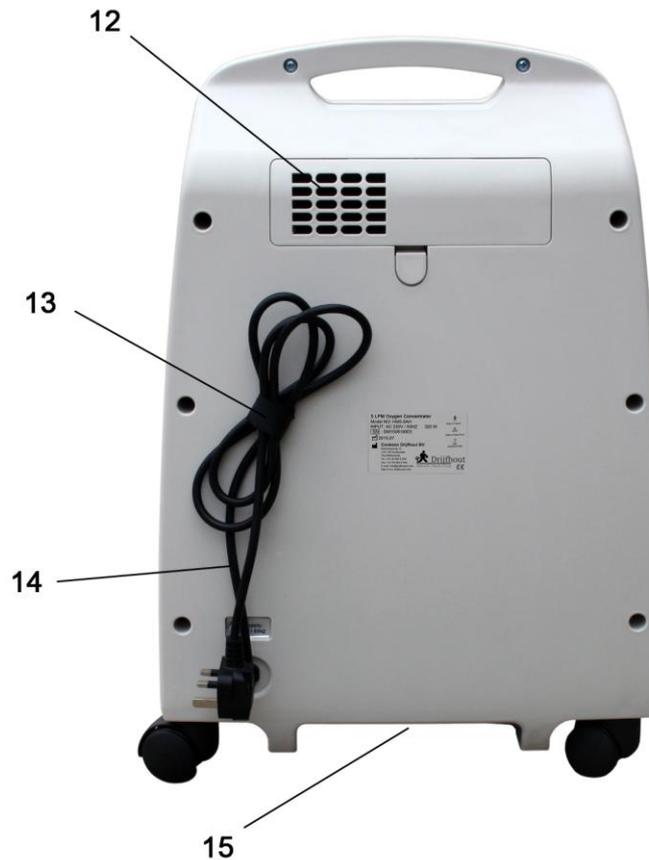
- . User manual.
- . Oxygen concentrator set with attached power cable.
- . Adapter



**Figure 1**

## Front View (Figure 1)

1. Flow meter
2. Flow meter knob
3. Power Switch  
I = ON  
O = OFF
4. Circuit breaker: resets the unit after electrical overload shutdown
5. Operating panel
6. Red 'Service Required' light: when illuminated contact your provider
7. Yellow 'Low Oxygen' light: the LED display low oxygen
8. Green 'Normal Oxygen' light: the LED display normal oxygen
9. Green 'Power' light: illuminates when your concentrator is operating
10. Monitor: indicates the condition of system pressure status, the oxygen purity status and electric hour meter
11. Oxygen outlet: oxygen is dispersed through this port



**Figure 2**

## **Back View (Figure 2)**

- 12. Air filter: prevents dirt, dust, and lint from entering the unit
- 13. Tie for power line: secures the power line when the machine is stored
- 14. Power line and /or IEC power connector
- 15. Exhaust

## SETTING UP THE OXYGEN CONCENTRATOR

1. Position your unit near a suitable 220 ~ V electrical outlet in the room.



### DANGER

**Keep the oxygen concentrator at least 1,5 meter (approx 5 feet) away from hot or sparking objects. Always keep naked flames away from the oxygen concentrator.**

**NOTE:** Do not connect to an electrical outlet controlled by a wall switch. NO other appliances should be plugged into the wall outlet.

2. Position your unit at least 15 centimeters (approx 6 inches) away from walls, draperies or any other objects that might prevent the proper flow of air in and out of your oxygen concentrator. The Oxygen concentrator should be located so, as to avoid pollutants or fumes.

## BEFORE OPERATING THE OXYGEN CONCENTRATOR

Before operating your unit:

- a. **Cut the two tie wraps off and pull them out** at the bottom of the machine. LEAVE THE CONCENTRATOR POSITIONED VERTICALLY.
- b. Make sure the air filter (located on the back of your unit) is clean. Proper cleaning of this filter is discussed in the CLEANING THE HM SERIES OXYGEN CONCENTRATOR on page 9.

Attach the adapter to the oxygen outlet. A flashback arrestor (supplied separate) is recommended between the hose of the torch and the adapter.

Remove the power cord completely from the line cord strap and make sure the power switch is in the "Off" position. Insert the plug into the wall outlet. The unit is double insulated to guard against electric shock.



### WARNING

**Improper use of the power cord and plugs can cause a burn, fire or other electric shock hazards. Do not use the unit if the power cord is damaged.**

## OPERATING THE HM SERIES CONCENTRATOR



### DANGER

**Oxygen causes rapid burning. Do not use within 1,5 meter (approx 5 feet) of hot or sparking objects. Always keep naked flames away from the oxygen concentrator. Do not smoke while your oxygen concentrator is operating, or when you are near a person using the oxygen concentrator.**

Press the power switch to the 'On' position. The 'Power' light will turn green and the 'Normal Oxygen' light will illuminate.

**NOTE:** If the 'Service Required' light illuminates followed by audible alarms, please refer to the Minor Troubleshooting chart on page 11 and contact your provider if necessary.

**NOTE:** If an audible low-frequency vibration sound is detected, the unit is not operating properly. Please refer to the Minor Troubleshooting chart on page 11 and contact your provider if necessary.

**NOTE:** To decrease the flow of oxygen, turn the flow meter clockwise and will eventually shut the oxygen flow off. Turning the knob anticlockwise increases the oxygen flow.

**Make sure the flow meter is never turned fully open but at least one full turn less.**

## CLEANING THE HM SERIES OXYGEN CONCENTRATOR

**NOTE:** Use no lubricants, oil or grease.



### WARNING

**Make sure the machine is turned 'OFF' before starting any cleaning procedures.**

#### Air Filter

The Air Filter should be cleaned at least once a month.

To clean, follow these steps:

1. Remove the Air Filter located on the back of the unit.
2. Wash in a solution of warm water and little dishwashing detergent.
3. Rinse thoroughly with warm tap water and towel dry. The filter should be **completely dry** before reinstalling. It might be useful to have a spare Air Filter that you can use while the other is drying.

**CAUTION:** To prevent product damage, do not attempt to operate the unit without the Air Filter or while the filter is still damp.

#### Exterior Cabinet

Clean the concentrator exterior cabinet by using a damp cloth or sponge with a mild house-hold cleaner and wipe it dry.



### WARNING

**Do not remove the concentrator cabinet to avoid electric shock. The cabinet should only be removed by provider's qualified technician. Do not apply liquid directly on the cabinet or utilize any petroleum-based solvents or cleaning agents.**

The HM SERIES concentrators have a device within that monitors the oxygen produced by the unit. When the unit is turned 'ON' all four lights on the front panel will illuminate briefly ('Power', 'Low Oxygen', 'Normal Oxygen', and 'Service required'). After a few seconds, only the 'Power' and 'Normal Oxygen' lights will remain lit.

The lights on the front panel are defined as follows:

- Green 'Normal Oxygen' light: acceptable oxygen level.
- Yellow 'Low Oxygen' light: below an acceptable oxygen level.

If the oxygen purity falls below the acceptable level, the green 'Normal Oxygen' light will shut off and the yellow 'Low Oxygen' light will illuminate. Refer to the Troubleshooting section in this guide on page 11 and contact your provider.

An added safety feature: should the oxygen purity continue to drop, an intermittent audible signal will sound. Contact your provider and do not attempt any other maintenance.

## MINOR TROUBLESHOOTING

Symptom	Possible Cause	Remedy
A. Unit does not operate. 'Power' light is off when the power switch is 'ON'. Audible alarm is pulsing and 'Service Required' light is flashing.	1. Power cord not properly inserted into wall outlet.	Check power connection at the wall outlet.
	2. No power at wall outlet.	Check your home circuit breaker and reset if necessary. Use a different wall outlet if the situation occurs again.
	3. Oxygen concentrator circuit breaker activated.	Press the concentrator circuit breaker button located above the power switch. Use a different wall outlet if the situation occurs again.
B. Unit is turned on, the 'Power' light is on but the red 'Service Required' light is illuminated. An alarm may sound.	1. Air filter is blocked.	Check the Air Filter. If the filter is dirty, wash it following the cleaning instructions on page 9.
	2. Exhaust is blocked.	Check the exhaust area; make sure there is nothing restricting the unit's exhaust.
	3. Flow meter set too low.	Set flow meter to a higher flow rate. If this has no effect, contact your provider.
C. Unit is turned on, the 'Power' light is on and an audible low-frequency vibration sound is detected.		Turn the unit "off" and contact your provider.
D. If any other problems occur with the oxygen concentrator.		Turn the unit "Off" and contact your provider.
E. Both Green 'Normal Oxygen' light and Yellow 'Low Oxygen' lights are on or both are off.		Contact your provider.
F. Either Green 'Normal Oxygen' light or Yellow 'Low Oxygen' light is on and an audible alarm is sounding intermittently.	1. The flow meter is not set properly	Set the flow meter to a higher flow rate.
	2. Air Filter blocked	Check the Air Filter. If the filter is dirty, wash it following the cleaning instructions on page 9.
	3. Exhaust system blocked	Check the exhaust area; make sure there is nothing restricting the unit's exhaust.
		If the above remedies do not work, contact your provider.
G. Red 'Service Required' light is on and an intermittent audible alarm is sounding.	1. The flow meter is not set properly	Set the flow meter to a higher flow rate.
	2. Air Filter is blocked.	Check the Air Filter. If the filter is dirty, wash it following the cleaning instructions on page 9.
	3. Exhaust is blocked.	Check the exhaust area: make sure there is nothing restricting the unit's exhaust.
		If the above remedies do not work, contact your provider.

## SPECIFICATIONS

No.	Item	Rating
1.	Delivery Rate (@ nominal outlet pressures of 0 and 7 kPa)	HM5-5AH -- 1 to 5 LPM HM5-8AH -- 1 to 8 LPM
2.	Outlet Pressure	8.5 ± 0.5 psi ( 58.6 kpa )
3.	Electrical Rating	HM5-5AH 230V, 50 Hz, 1.4A (Max.) 320W HM8-8AH 230V, 50 Hz, 2.5A (Max.) 540W
4.	Oxygen Percentage	93%±3%
5.	Operating Environment Range	Temperature 5°C to 40°C, Humidity ≤80% Atmospheric pressure 12.5 psi~15.4psi ( 86kPa~106 kPa )
6.	Operating Altitude (tested at 21°C only) 0-2000 M (0-6561 ft) 2000-4000 M (6561-13123 ft)	Across the voltage range: No degradation of performance Not recommended/Not tested
7.	The visible oxygen indicator will activate at the following level (suitable for HM5-5AH, HM8-8AH)	>85%±2% the green "normal oxygen" light will activate; <85%±2% the yellow "low oxygen" light will activate; <82%±2% the red "service required" light will activate
8.	Pressure relief valve	40 psi±5 psi (276 kPa±34.5 kPa)
9.	Weight	HM5-5AH -- 35 lbs. (15.9 kilograms) HM8-8AH -- 42.3 lbs. (19.2 kilograms)
10.	Sound Level (ISO 8359:1996 from front)	HM5-5AH <48d(A) HM8-8AH <55db(A)
11.	Dimensions	24.4"H x 16.9"W x 12.6"D (62 x 43 x 32 cm)
12.	Operating System	Time Cycle / Pressure Swing
13.	Storage conditions	Temperature -20°C to 55°C Humidity ≤90% Atmospheric pressure 12.5 psi~15.4psi ( 86kPa~106 kPa )

14.	Equipment Class and Type	The type of protect against € The degree of protect again:  <b>Drijfhout</b> Heimerle + Meule Group
-----	--------------------------	--

## SYMBOLS

	General warning, caution, risk of danger Please read the instructions carefully before operating the product.
	Type B applied part Note: B = Body
	Class II equipment
<b>SN</b>	Manufacturer's serial number
	Date of manufacture
	Manufacturer
	Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE Directive). Please dispose of the machine according to local law or regulation requirements to avoid pollution.
	FRAGILE Contents of the transport package are fragile therefore it shall be handled with care.
	THIS WAY UP Indicates correct upright position of the transport package.
	KEEP AWAY FROM RAIN Transport package and concentrator needs to be kept away from rain.



# HM5 - 5AH



**Cookson**  
Tel. +31 20



erlands **15**  
[drijfhout.nl](http://drijfhout.nl)



# HM8 - 8AH