BlenderBuddy 2

Operating Manual & Instructions For Use

ENGLISH

R233M01 REV. B

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For the most current manual revision please visit our website: www.maxtec.com

WARRANTY

Under normal operating conditions, Maxtec warrants the BlenderBuddy 2 to be free from defects of workmanship or materials for two (2) years from receipt. Warranty does not cover breakage/abuse.

These warranties are from the date of receipt, provided that the product is properly operated and maintained in accordance with Maxtec's operating instructions. Based on Maxtec product evaluation, Maxtec's sole obligation under foregoing warranty is limited to making replacements, repairs, or issuing credit for equipment found to be defective. This warranty extends only to the buyer purchasing the equipment directly from Maxtec or through Maxtec's designated distributors and agents as new equipment. Routine maintenance items, such as O-rings, are excluded from warranty. Maxtec and any other subsidiaries shall not be liable to the purchaser or other persons for incidental or consequential damages or equipment that has been subject to abuse, misuse, mis-application, alteration, negligence or accident. These warranties are exclusive and in lieu of all other warranties, expressed or implied, including warranty of merchantability and fitness for a particular purpose.

For product warranty returns, please contact Maxtec Customer Service for a Return Material Authorization (RMA).

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DESCRIPTION

The BlenderBuddy 2 is an accessory designed for use with air/oxygen blenders. It utilizes a Maxtec Designed for Blenders (DFB) flowmeter which is designed and calibrated specifically for air/oxygen blenders to provide increased accuracy compared to standard flowmeters. By utilizing dual-scale graduations, the flowmeter provides two flowmeters in one for increased accuracy at lower flows. The flowmeter features a high-quality acrylic block body and precision valve. The BlenderBuddy 2 also provides a sensor analysis port which may be used to measure the gas concentration from the blender. A small continuous sensor bleed is provided which enables gas analysis regardless of which outlet port is used on the blender.

INTENDED USE

The BlenderBuddy 2 is a flowmeter intended for use with an air/oxygen blender and is to be used by physicians, respiratory therapists and other authorized hospital personnel to administer selected doses of medical gases to a patient The BlenderBuddy 2 also contains a gas analysis port which may be used with a suitable oxygen analyzer to measure the gas concentration.

WARNINGS ⚠

- Read this User Manual before installing or operating the BlenderBuddy 2.
- This manual instructs a professional to install and operate the BlenderBuddy 2. This is provided for your safety and to prevent damage. If you do not understand this manual, ⃠ DO NOT USE the BlenderBuddy 2 and contact your provider.
- Use BlenderBuddy 2 only for its “Intended Use” as described in this manual.
- This product should only be used under proper supervision of a healthcare professional.
- The BlenderBuddy 2 is for use with air/oxygen blenders only. The accuracy of the flowmeter will be affected if the BlenderBuddy 2 is used in any other way.
- Follow all manufacturer instructions for proper air/oxygen blender and bleed operation.
- ALWAYS activate the blender bleed when necessary according to the blender manufacturer instructions. Failure to do so may result in inaccurate concentrations from the blender.
- The flowmeter is capable of delivering flows greater than the indicated value (flush flow). Adjusting the flow beyond the indicated range will result in an undetermined flow.
- The BlenderBuddy 2 is capable of delivering gas mixtures at pressures equal to the blender outlet. Always confirm proper setup before patient use.
- Check for leaks and proper operation before placing the BlenderBuddy 2 into service.
- ALWAYS confirm prescribed flow and oxygen concentration before administering to patient and monitor on a frequent basis.
- The BlenderBuddy 2 may contain magnetic, ferrous material and is NOT for use in MRI Environments.

⃠ **DO NOT** connect to source pressure greater than 100 psi.

- **DO NOT** disassemble the BlenderBuddy 2 while pressurized.
- **DO NOT** use substitute parts.
- **DO NOT** use lubricants on O-rings.
- **DO NOT** use the BlenderBuddy 2 if you suspect components are damaged, altered, or missing. Inspect unit before each use.

To Reduce the Risk of Fire or Explosion:

- ALWAYS follow ANSI and CGA standards for Medical Gas Products and Oxygen Handling.
- **DO NOT** use or store oils, greases, organic lubricants or any combustible materials on or near the BlenderBuddy 2.
- **DO NOT** use near any type of flame or flammable/explosive substances, vapors or atmosphere.
- **DO NOT** smoke in an area where oxygen is being administered.

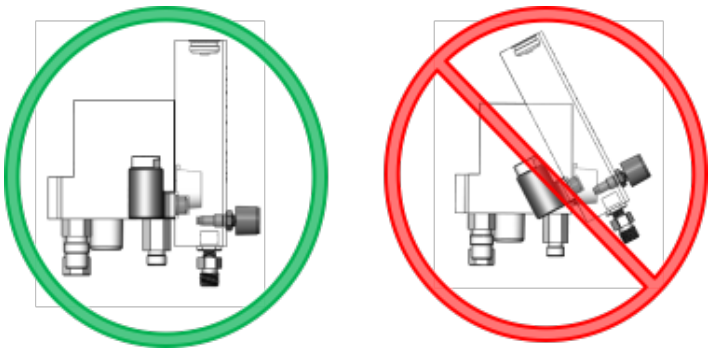
CAUTION

- The BlenderBuddy 2 must be operated with the Flowmeter in a vertical, upright position.
- Gas temperatures other than 70° F (21°C) may affect the accuracy of the indicated flow.
- **DO NOT** drop the BlenderBuddy 2.
- **DO NOT** attempt to sterilize the BlenderBuddy 2
- **DO NOT** clean with aromatic hydrocarbons.
- **DO NOT** immerse the BlenderBuddy 2 in any kind of liquid.
- **DO NOT** over-tighten knob when turning off. This may damage the flow meter.
- **DO NOT** occlude or plug the gas sensor port.

1.0 INSTALLATION/OPERATION INSTRUCTIONS

NOTE: Low flow BlenderBuddy 2 models (3, 15 and 30 LPM) should only be used with Low Flow blenders. High Flow BlenderBuddy 2 models (70 LPM) should only be used with High Flow blenders. Use outside these applications may result in flowmeter inaccuracies.

ATTACH THE BLENDERBUDDY 2 TO THE LEFT SIDE DISS PORT OF THE AIR/OXYGEN BLENDER USING AN 11/16" WRENCH.



ALIGN THE FLOWMETER IN AN UPRIGHT, VERTICAL POSITION WITH THE BLENDER AND FIRMLY TIGHTEN THE FITTING.

NOTE: Ensure the fitting is completely tightened to prevent rotation during use.

INSERT OXYGEN ANALYZER WITH SENSOR DIVERTER INTO THE SENSOR PORT TO MEASURE THE DELIVERED GAS FROM THE BLENDER.

NOTE: Use the sensor diverter provided with your BlenderBuddy 2 or genuine Maxtec replacement.

WARNING ⚠

Follow all manufacturer instructions for proper blender bleed operation. A blender bleed is typically required to maintain mixing accuracy for flows less than 3LPM on low flow blenders and below 15LPM for high flow blenders. Failure to activate the blender bleed may result in inaccurate concentrations from the blender.

NOTE: A small continuous sensor bleed is provided to the analysis port which enables gas analysis regardless of which outlet port is used on the blender.

2.0 FLOWMETER OPERATION

Adjust the flowmeter to the desired set-point as read by the center of the float ball ⊖.

- To **increase** flow—turn knob **counter-clockwise** ↺
- To **decrease** flow—turn knob **clockwise** ↻

⚠ **WARNING:** The flowmeter is capable of delivering flows greater than the indicated (flush flow). Adjusting the flow beyond the indicated range will result in an undertermined flow.

3.0 CLEANING & MAINTENANCE

3.1 Cleaning

Exterior surfaces may be cleaned using a cloth and mild detergent, isopropyl alcohol solution, or germicidal wipe.

3.2 Maintenance

The BlenderBuddy 2 does not require any periodic maintenance or contain any user serviceable components.

4.0 SPECIFICATIONS

Flowmeter Accuracy:

MODEL	FLOWMETER GRADUATIONS	ACCURACY	FLUSH FLOW
3 LPM	0.1 (0.1-1) LPM 0.5 (1-3) LPM	± 0.5 LPM	20–30 LPM
15 LPM	0.25 (0.5-3) LPM 1 (5-15) LPM	0.5-3: ± 0.5 LPM 5-15: ± 10% of indicated value	20–30 LPM
30 LPM	0.25 (0.5-3) LPM 2.5 (5-30) LPM	0.5-3: ± 0.5 LPM 5-30: ± 10% of indicated value	35–45 LPM

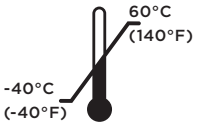
70 LPM	1 (2-15) LPM 5 (15-70) LPM	2-4: ± 0.5 LPM 5-70: ± 10% of indicated value	70–80 LPM

WEIGHT	.88 lbs. (.4 kg)
TOTAL SYSTEM RESPONSE TIME	≤ 30 seconds
STORAGE TEMPERATURE	-40°F (-40°C) to 140°F (60°C)

The BlenderBuddy 2 is calibrated for air/oxygen gas mixtures at 70° F (21° C) and is compensated for the pressure drop of a typical blender with inlet pressures at 50 psig. Specifications are subject to change without prior notice.

4.1 Symbol Guide

The following symbols and safety labels are found on the *BlenderBuddy 2*:

	FEDERAL LAW (USA) RESTRICTS THIS DEVICE TO SALE BY OR ON ORDER OF		NOT MANUFACTURED WITH NATURAL RUBBER LATEX
	WARNING		STORAGE TEMPERATURE
	CONSULT INSTRUCTIONS FOR USE		NON-STERILE
	MANUFACTURER		AUTHORIZED REPRESENTATIVE
	MADE IN USA		CONTAIS NO POLYVINYL CHLORIDE
	DO NOT		DESIGNED FOR BLENDERS

REF	CATALOG NUMBER	LOT	LOT NUMBER

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