The Mystery of Blender Bleeds

Simply put, Medical Air/Oxygen Blenders require a minimum flow of gas passing through it to ensure its accuracy. This minimum flow rate varies depending on the series of Blender; Low Flow Blenders have a flow that passes through the Blender and out the bottom (known as the bleed), at a rate of 3 L/min while the High/Low series has a bleed rate of 10-12 L/min. The Low Flow series requires this bleed to be on for accuracy of flows below 3 L/min, and High/Low Flow series below 15 L/min. Any time the Blender is being used below these flows, the bleed must be on to assure accuracy of oxygen concentration.

The bleed is controlled by whatever is on the right side of the Blender. This could be a DISS fitting, a knob or a flowmeter. In the case of the DISS fitting, the bleed is turned on any time something is connected to this fitting such as a flowmeter. When a knob is present, the bleed is turned on by setting the bleed knob to <3 L/min. When a flowmeter bleed switch is present on the right side, the bleed is turned on by rotating the flowmeter into its vertical position.

Why choose a Blender with an ON/OFF bleed control?

Using the bleed control (Knob or Flowmeter Switch) allows you to turn off the bleed so you can conserve oxygen without having to disconnect anything from the Blender. Equipment is always ready for immediate use with the turn of a switch or knob in any emergency situation. This saves you time, gas and money!

When do you need to turn on the bleed?

Turn on the bleed when the flow through the Blender is less than 3 L/min for the Low Flow Blenders or 15 L/min for the High/Low Flow Blenders (this does not mean per port, but rather total flow). In other words, as long as the flow is above the minimum using any combination of ports, you don't need the bleed. When below the minimum flow, turn on the bleed, for accurate oxygen concentration setting.
The bleed turns ON when:
- Any equipment (normally a flowmeter) is attached to the right port
- A Bleed Switch is turned ON
- A Bleed Knob is turned ON

Blender bleeds are needed for ± 3% accuracy when:
- Flowmeters on Low Flow Blenders are set below 3 L/min
- Flowmeters on High/Low Flow Blenders are set below 15 L/min

The bleed turns OFF when:
- Any equipment (normally a flowmeter) is removed from the right port
- A Bleed Switch is turned OFF
- A Bleed Knob is turned OFF

1. NEO2 Blend with Unique Bleed Switch
2. Blender with ON/OFF Knob
3. Standard Low Flow

Low Flow Series

- 3 L/min Bleed
- Left Flowmeter is accurate from 0-15 L/min
- 3 L/min Bleed
- Left Port is accurate from 0-30 L/min
- 3 L/min Bleed
- Left Port is accurate from 0-30 L/min

High/Low Flow Series

- Three Ports
- High/Low Flow
- 10-12 L/min Bleed
- Bottom & Left Port is accurate from 2-108 L/min
- Standard
- High/Low Flow
- 10-12 L/min Bleed
- Bottom Port is accurate from 2-108 L/min