

Precision Medical Air/Oxygen Blender Review

The use of an Air/Oxygen blender is necessary to vary the oxygen concentration given to patients to relieve their body's lack of oxygen in their blood and tissues. All manufacturers of blenders have at least 2 models, low flow and high flow. One manufacturer makes a third type which is a mid-flow model. Precision Medical manufacturers' two (2) models of air/oxygen blenders: the PM5200 High Flow Blender and the PM5300 Low Flow Blender. Blenders should be purchased based on the application of the customer and type of patient they are using the device on.

1. The PM5300

- a. Low flow blender with a total flow capability of 30 LPM from one or from an addition of the total flow through all of outlets.
- b. Primary outlet located on the left side of blender, auxiliary outlet located on right side of blender. (As you view the blender from the front)
- c. Auxiliary outlet has the bleed collar integrated into the outlet.
- d. Flow range 3-30 LPM and an oxygen accuracy of $\pm 3\%$. (Bleed closed)
- e. Flow range of 0-30 LPM and F_{IO_2} accuracy of $\pm 3\%$. (Bleed open)
- f. The PM5300 is typically recommended for all neonatal and most pediatric patients.
- g. The PM5300 can be used to provide a mixed F_{IO_2} to devices that are used in the NICU and PICU. (high frequency oscillators, jet ventilators, heated high flow nasal cannulas, transport ventilators and systems, for examples)

Note about bleed flow: All pneumatic blenders require a bleed flow to maintain the accuracy of the F_{IO_2} at lower flows. The ability to turn off the bleed allows the hospital to not waste oxygen and decreases the sound of the device. The PM5300 requires the bleed collar to be activated (slid toward the blender case) when the clinician wants to use flow rates less than 3 LPM. The bleed flow will only occur if there is a flowmeter attached to the auxiliary port (right side) of the blender and the bleed collar is activated. For all flows less than 3 LPM the flowmeter on the auxiliary side of the blender should be used to ensure accuracy of the oxygen concentration.

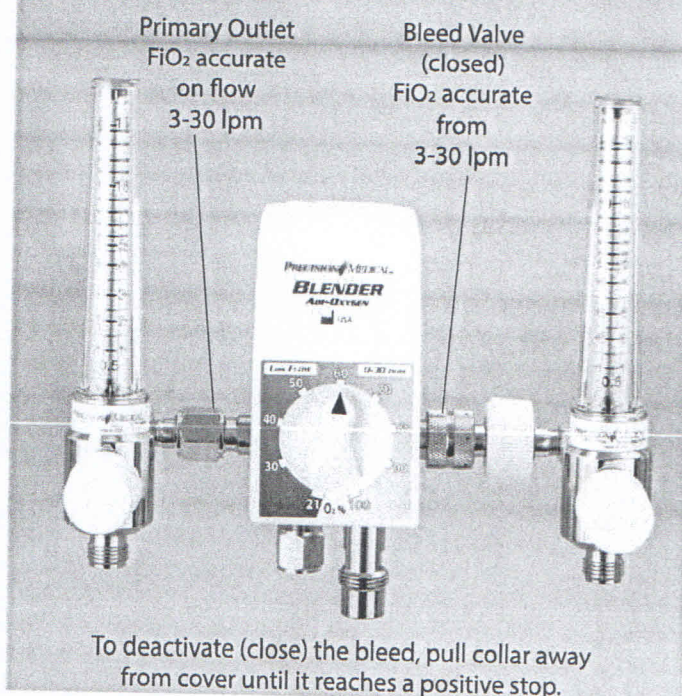
2. The PM5200

- a. High flow blender with a total flow capability of 120 LPM from one or from an addition of the total flow through all of outlets.
- b. Primary outlet located on the bottom of blender, auxiliary outlet located on right side of blender. (As you view the blender from the front)
- c. Auxiliary outlet has the bleed collar integrated into the outlet.
- d. Flow range 15-120 LPM and an oxygen accuracy of $\pm 3\%$. (Bleed closed)
- e. Flow range of 2-100 LPM and $F_{I_{O_2}}$ accuracy of $\pm 3\%$. (Bleed open)
- f. The PM5200 is typically recommended for all adult and large pediatric patients.
- g. The PM5200 can be used to provide a mixed $F_{I_{O_2}}$ to devices that are used in the adult ICU's and on large pediatric patients. (ventilators without an integrated blender, high frequency oscillators, heated high flow nasal cannulas, transport ventilators and systems, for examples)

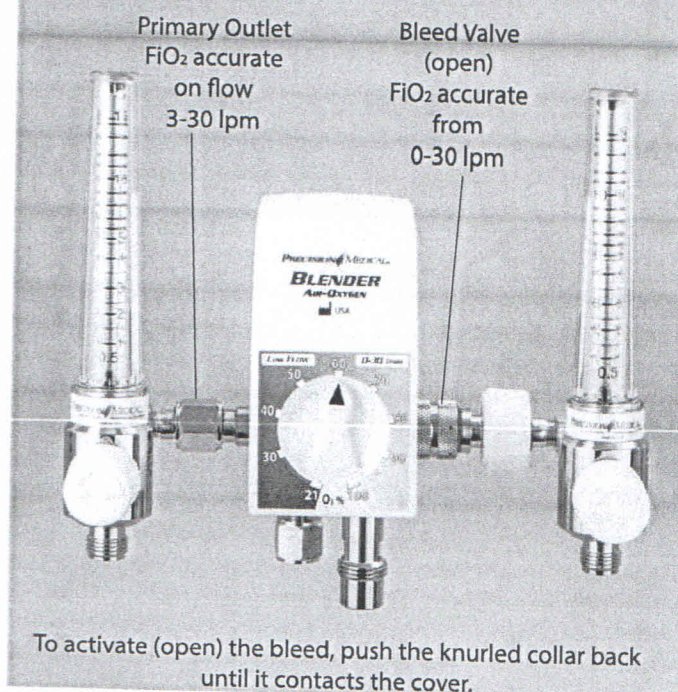
Note about bleed flow: The PM5200 requires the bleed collar to be activated (slid toward the blender case) when the clinician wants to use flow rates less than 15 LPM. The bleed flow will only occur if there is a flowmeter attached to the auxiliary port (right side) of the blender and the bleed collar is activated. For all flows less than 15 LPM the flowmeter on the auxiliary side of the blender should be used to ensure accuracy of the oxygen concentration. The ability to turn off the bleed allows the hospital to not waste oxygen and decreases the sound of the device.

All Precision Medical Blenders are available in custom configurations. Please contact Precision Medical should the configurations pictured below not meet the customer's needs.

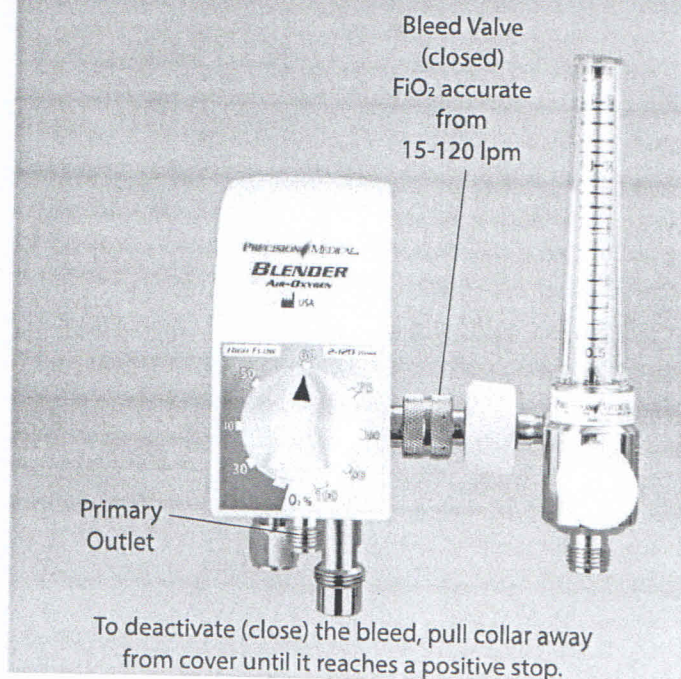
Low Flow Closed



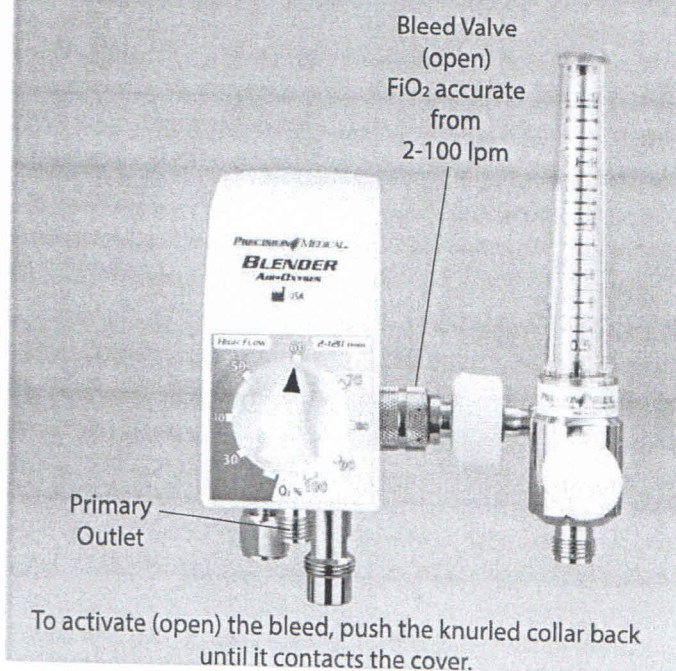
Low Flow Open



High Flow Closed



High Flow Open



Blender Bleed Operation