



The Difference is **Precision**.



# Medical Blenders

## Product Catalog

# A Global Leader in Respiratory Care since 1982

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For more than 35 years, Precision Medical has been a global pioneer dedicated to developing and manufacturing high-quality medical devices for respiratory care.

Our focus has always been on designing and producing state-of-the-art respiratory care products that are safe and reliable. Our innovative medical respiratory products are designed with both the caregiver and patient in mind. We have helped hospitals and homecare providers in more than 70 countries achieve positive patient outcomes. We bring that same level of hospital respiratory care and innovation to patients at home, so they can live actively.

Precision Medical is committed to precise engineering, superior craftsmanship, and rigorous testing for maximum product dependability. All of our products are domestically sourced and made in America.

Precision Medical continues to be a family owned and operated company located in Northampton, Pennsylvania.



The Difference is **Precision.**

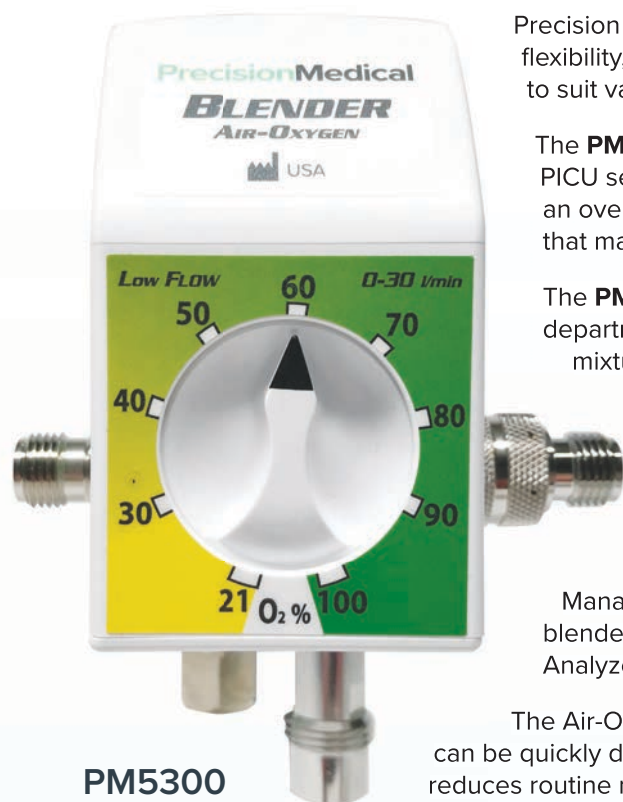
# Medical Blenders

are medical devices used in patient airway applications that provide precise mixing of medical grade gases. Blenders have input ports for two separate gases, which are typically oxygen and medical air. These inputs can either be delivered separately through the blender or as a blended air-oxygen contraction of 21% to 100% by adjusting the front control knob. Medical blenders are usually paired with auxiliary components such as flowmeters that control the output of flow.

Precision Medical offers a full line of air-oxygen and helium-oxygen medical blenders and accessories to meet the clinical requirements in neonatal and pediatric intensive care units. Our line of medical blenders are available in low-flow or high-flow configurations. The oxygen monitor and analyzer can be attached to the blender to measure the selected oxygen concentrations and accurately display measured concentrations digitally. The oxygen monitor provides high and low alarms that activate both audibly and visually if concentrations are not in the set range. The Air-Oxygen Blenders are designed to allow clinicians to turn the bleed control on or off, allowing for quieter operation which benefits neonatal and pediatric intensive care units as well as providing considerable oxygen gas cost savings.



# Air-Oxygen Blender Series



PM5300

Precision Medical's low-flow and high-flow air-oxygen blenders offer unparalleled flexibility, safety, and value. Our innovative, modular systems can be configured to suit various clinical needs within minutes.

The **PM5300 series of low-flow air-oxygen blenders** is ideal for NICU and PICU settings. This series delivers  $\text{FiO}_2$  mixtures from two outlet ports and has an overall flow range of 0-30 l/min. The PM5300 series is a highly accurate unit that maintains  $\text{FiO}_2$  even at low flows.

The **PM5200 series of high-flow air-oxygen blenders** is intended for use in ER departments, adult ICUs, ORs, and labor and delivery settings. It delivers  $\text{FiO}_2$  mixtures from two outlet ports and has an overall flow range of 2-120 l/min.

Clinicians have the option to turn the bleed control on or off which provides quieter operation. A large selection control knob is recessed to prevent accidental damage and makes oxygen percentage adjustments straightforward.

The flexible design and available accessories allow for customization. Manage your capabilities as demand and budget warrant. Extend the base blender setup by adding the optional Oxygen Monitor or AccuO2 Oxygen Analyzer to create a complete mixing package.

The Air-Oxygen Blender is easily installed with a universal mounting bracket and can be quickly detached without removing hoses. A unique, interchangeable design reduces routine maintenance time and costs. The infection-control friendly, ABS housing makes the blender durable and effortless to clean. The unit has 8 simple-to-replace components and is easy to service by biomed departments.

PM5200



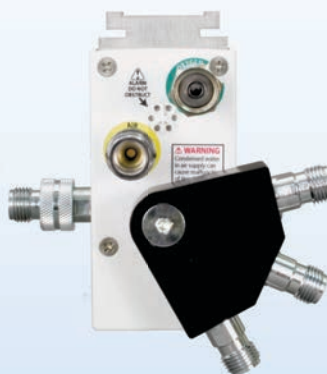
PM5201





**PM5200M**

**PM5300M** with same outlet configuration also available.



## Features

- Modular and fully customizable
- Multiple accessories available for suiting various clinical applications
- Simple preventative maintenance
- Easy to clean and disinfect

## Product Specifications

### Low Flow Air-Oxygen Blender (PM5300)

- FiO<sub>2</sub> accuracy:**  
± 3% of full scale
- Primary outlet flow range:**  
3-30 l/min
- Auxiliary out flow range:**  
0-30 l/min

### High Flow Air-Oxygen Blender (PM5200)

- FiO<sub>2</sub> accuracy:**  
± 3% of full scale
- Primary outlet flow range:**  
15-120 l/min
- Auxiliary out flow range:**  
2-100 l/min

## Warranty

2-year on device

## Ordering Information

### Low Flow Air-Oxygen Blender

2 outlets (1 primary, 1 auxiliary) - **PM5300**

### Low Flow Air-Oxygen Blender with Manifold

3 primary outlets, 1 auxiliary - **PM5300M**

### High Flow Air-Oxygen Blender

2 outlets (1 primary, 1 auxiliary) - **PM5201**

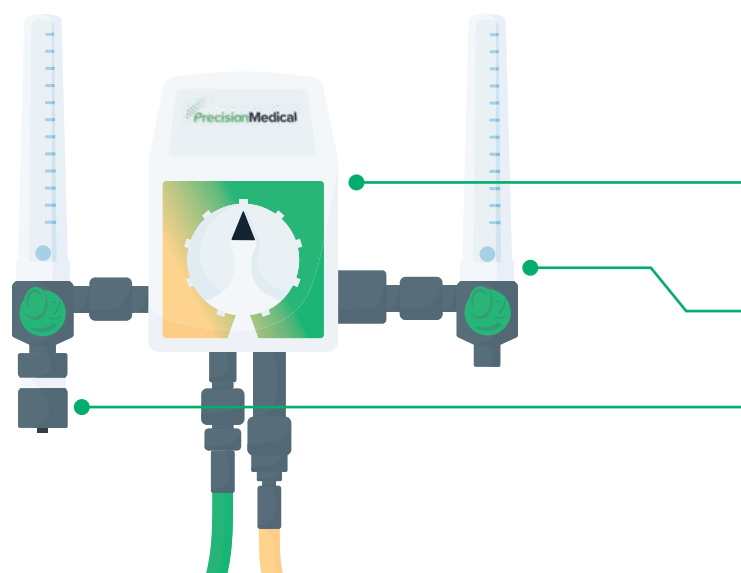
2 outlets (bottom & right) - **PM5200**

### High Flow Air-Oxygen Blender with Manifold

3 primary outlets, 1 auxiliary - **PM5200M**



# Blender Configurations



## Base Blender Setup

### Low/High Flow Air-Oxygen Blender

Provides a consistent primary outlet flow range of 0-30 or 2-120 l/min.

### Flowmeter

Available in multiple flow rates with inlet to left or right.

### High Flow Helper

Connect either oxygen, 22mm or 15mm tubing to this versatile adapter.

## Blender with Analyzer

### AccuO2 Oxygen Analyzer

Ensures accurate, reliable measurement of volume percent oxygen.

### Sensor Tee

Easily connects any oxygen sensor to any flowmeter.



## Blender with Monitoring

### Oxygen Monitor

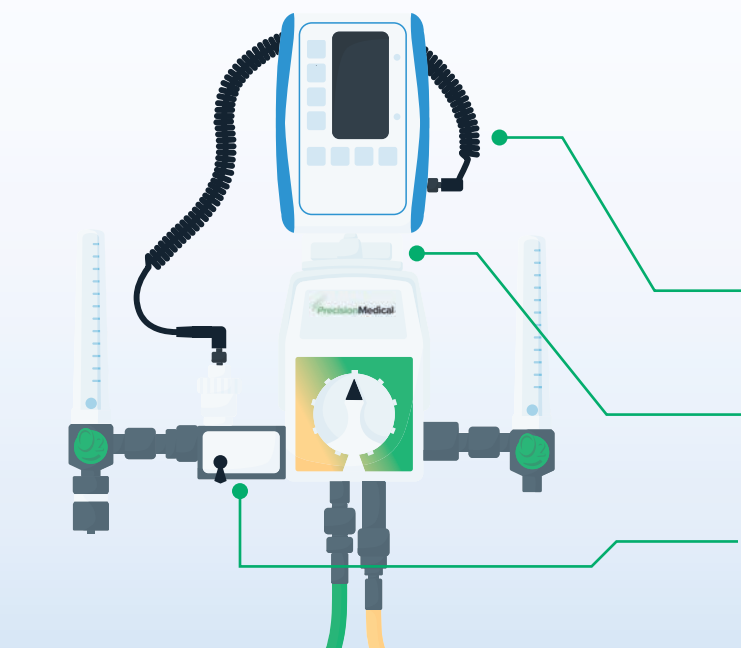
Accurately monitors and displays oxygen concentration with high and low alarms.

### Monitor/Analyzer Mounting Bracket

Durable, lightweight bracket to mount the monitor or analyzer to the blender.

### SensO2 Oxygen Sensor Manifold

Provides convenient, in-line control exclusively for Precision Medical blenders.



## Air-Oxygen Blender Mobile System

### Low/High Flow Air-Oxygen Blender and Pole Mount

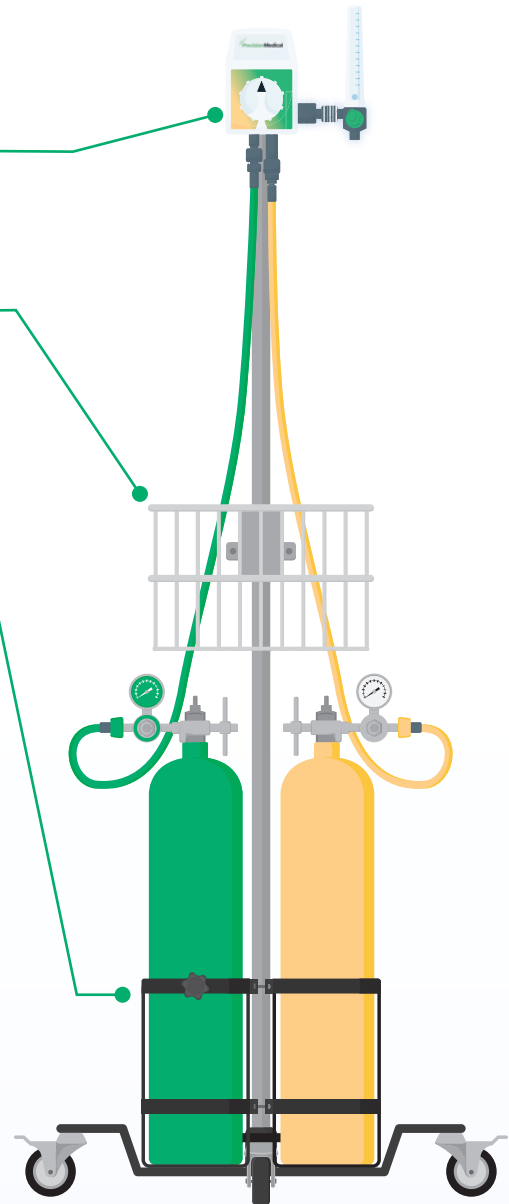
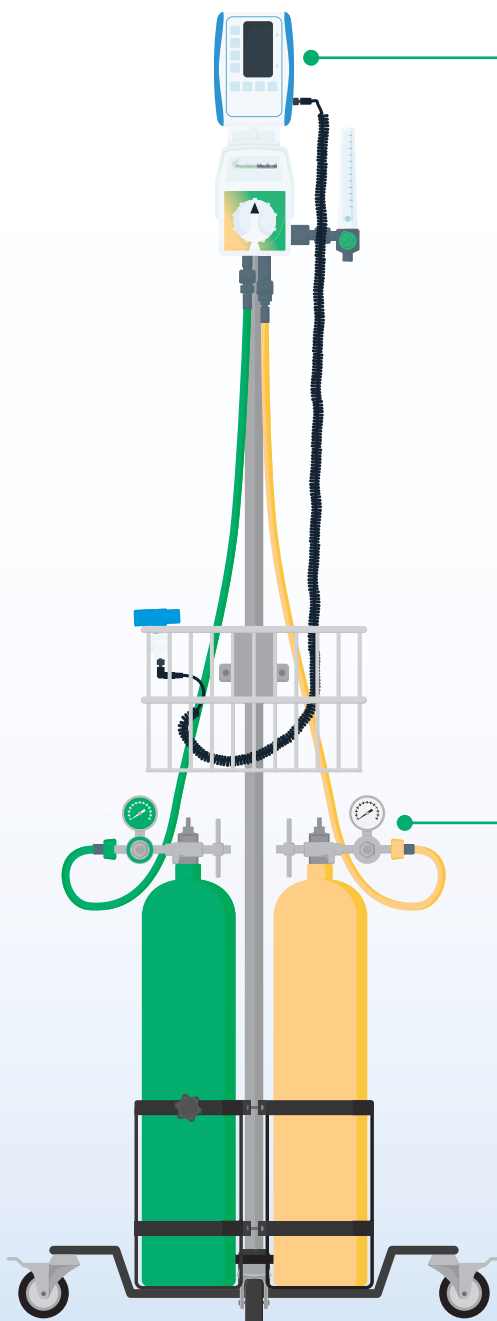
Provides a consistent primary outlet flow range of 0-30 or 2-120 l/min.

### Blender Stand with Wire Basket

Easily attach blender to pole with wire accessory basket

### Dual Cylinder Holder

Securely holds both air and oxygen cylinders



## Air-Oxygen Blender Mobile System with Oxygen Monitor

### Oxygen Monitor

Accurately monitors and displays oxygen concentration with high and low alarms.

### Air Regulator and Hose Assembly

Provides a minimum flow of 240 l/min

# Medical Blender Accessories

Precision Medical develops and manufactures a full line of medical blender accessories to meet the varied needs of clinical applications and care settings. Our medical blender accessories are modular and customizable depending on budget and requirements.



PM5900

## Oxygen Monitor

The Precision Medical Oxygen Monitor has been expertly engineered to meet the demands of critical settings. Using precise engineering principles, the oxygen monitor provides users gas analysis capabilities with easy-to-use, low maintenance features. Designed to accurately view oxygen concentrations, the monitor uses push buttons to easily set high and low alarms.

### Features

- Retains settings when batteries are removed
- Three standard alarms including high and low, check sensor and low battery
- Constructed of high impact housing for unmatched performance under the most demanding conditions
- Engineered with simple mounting brackets, soft side grips and nonskid support feet
- Easy-to-read screen and simple keypad operation
- Maintains  $\pm 3$  percent accuracy

### Warranty

2-year

### Ordering Information

#### Oxygen Monitor (PM5900)

Includes Oxygen monitor with coil cable, oxygen sensor diverter, oxygen sensor, tee adapter, and 4 AA batteries



PM5950

## AccuO2 Oxygen Analyzer

The AccuO2 Oxygen Analyzer is designed to accurately and reliably measure volume percent oxygen. The compact analyzer is best used when an inline analyzer is required. Calibration is done using air or oxygen by pressing the calibrate button.

### Features

- Lightweight
- Handheld or mountable
- Easy one touch calibration using medical air or oxygen
- 5,000+ hour operation using 2 AA batteries

### Warranty

2-year

### Ordering Information

#### AccuO2 Oxygen Analyzer (PM5950)

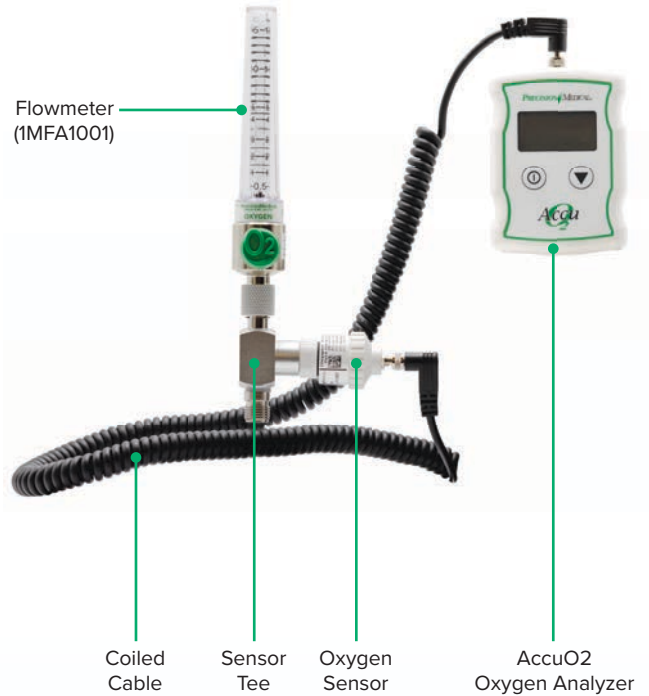
Includes Oxygen analyzer with coil cable, oxygen sensor diverter, oxygen sensor, tee adapter, and 2 AA batteries



## Oxygen Sensor Component Identification



## AccuO2 Oxygen Analyzer Setup



### PM5300SO

#### SensO2 Oxygen Sensor Supply

Specifically designed for the Precision Medical line of blenders, attaches to the left primary outlet

### 1MFAHF

#### High Flow Helper

Tubing connection adapter (3 sizes)

### 1MFATP

#### Sensor Tee

Easily connects an oxygen sensor to any flowmeter

### 505344

#### Oxygen Sensor Diverter

Fitting is used to connect to the oxygen source

### 505126

#### Tee Adapter

Single use Sensor Tee Adapter for PM5900 and PM5950

The Tee Adapter is used to connect the oxygen sensor and diverter fitting to an oxygen pathway circuit

### 504937

#### Coil Cable replacement sensor cable for PM5900 and PM5950

The coiled cable allows the sensor to be positioned up to 10 ft from the side of the oxygen analyzer. There are male plugs at each end of the coiled cable.

### 504877

#### Oxygen Sensor

Replacement galvanic oxygen sensor for PM5900 and PM5950

### PM15-45

#### Condensation trap for PM5200 and PM5300 series

### 506349

#### Heliox regulator for PM5400 and PM5500 series

### 870

#### Oxygen regulator for Mobile Blender system

### 504450

#### Air regulator for Mobile Blender system

### 507396

#### Dual cylinder holder for Mobile Blender system

### 507397

#### Wire accessories basket for Mobile Blender system

### 507395

#### Pole stand for Mobile Blender system

with 5-legged heavyweight rolling base

### 507398

#### Pole stand system for Mobile Blender

Includes cylinder holder and wire accessories basket

# HeliO<sub>2</sub> Helium Oxygen Blender Series



PM5480

The **HeliO<sub>2</sub> Helium-Oxygen Blender** is the only freestanding pneumatic HeliO<sub>2</sub> blending device on the market today. The ability to turn the bleed control collar ON or OFF provides  $\pm 3\%$  FiO<sub>2</sub> accuracy as well as quieter operation and maximal heliox tank durations.

The tough housing makes the unit durable and the selection control knob is recessed to prevent inadvertent changes in FiO<sub>2</sub>. The modular design can reduce maintenance time and costs. The unit can be easily maintained by all biomed departments.

The unit is available in four models, High-Flow 80/20 or 70/30 and Low-Flow 80/20 or 70/30. When paired with the optional cylinder clamp and pole, clinician setup time is greatly reduced and tank changes are easy. Multiple accessories can conform to clinician and user needs.



PM5570



PM5580



PM5470

# Oxygen Flowmeter Conversions

## Features

The world's only freestanding pneumatic helium oxygen blender

Modular and customizable

Multiple accessories available for suiting various clinical application

## Product Specifications

### High Flow Helium Oxygen Blender (PM5500 Series)

FiO<sub>2</sub> accuracy:  
± 3% of full scale

Primary outlet flow range:  
15-120 l/min

Auxiliary out flow range:  
2-100 l/min

### Low Flow Helium Oxygen Blender (PM5400 Series)

FiO<sub>2</sub> accuracy:  
± 3% of full scale

Primary outlet flow range:  
3-30 l/min

Auxiliary out flow range:  
0-30 l/min

## Warranty

2-year on device

## Ordering Information

### High Flow Helium -Oxygen Blender

70/30 - **PM5570**

80/20 - **PM5580**

### Low Flow Helium -Oxygen Blender

70/30 - **PM5470**

80/20 - **PM5480**

Oxygen flowmeter setting	Corrected Heliox Flow (l/min) at Various FiO <sub>2</sub> Settings								
	20%	30%	40%	50%	60%	70%	80%	90%	100%
1	1.8	1.6	1.4	1.3	1.2	1.18	1.15	1.02	1.0
2	3.6	3.2	2.8	2.6	2.4	2.4	2.3	2.0	2.0
3	5.4	4.8	4.2	3.9	3.6	3.5	3.5	3.1	3.0
4	7.2	6.4	5.6	5.2	4.8	4.7	4.6	4.1	4.0
5	9.0	8.0	7.0	6.5	6.0	5.9	5.8	5.1	5.0
6	10.8	9.6	8.4	7.8	7.2	7.1	6.9	6.1	6.0
7	12.6	11.2	9.8	9.1	8.4	8.3	8.1	7.1	7.0
8	14.4	12.8	11.2	10.4	9.6	9.4	9.2	8.2	8.0
9	16.2	14.4	12.6	11.7	10.8	10.6	10.4	9.2	9.0
10	18.0	16.0	14.0	13.0	12.0	11.8	11.5	10.2	10.0
11	19.8	17.6	15.4	14.3	13.2	13.0	12.7	11.2	11.0
12	21.6	19.2	16.8	15.6	14.4	14.2	13.8	12.2	12.0
13	23.4	20.8	18.2	16.9	15.6	15.3	15.0	13.3	13.0
14	25.2	22.4	19.6	18.2	16.8	16.5	16.1	14.3	14.0
15	27.0	24.0	21.0	19.5	18.0	17.7	17.3	15.3	15.0
16	28.8	25.6	22.4	20.8	19.2	18.9	18.4	16.3	16.0
17	30.6	27.2	23.8	22.1	20.4	20.1	19.6	17.3	17.0
18	32.4	28.8	25.2	23.4	21.6	21.2	20.7	18.4	18.0
19	34.2	30.4	26.6	24.7	22.8	22.4	21.9	19.4	19.0
20	36.0	32.0	28.0	26.0	24.0	23.6	23.0	20.4	20.0
21	37.8	33.6	29.4	27.3	25.2	24.8	24.2	21.4	21.0
22	39.6	35.2	30.8	28.6	26.4	26.0	25.3	22.4	22.0
23	41.4	36.8	32.2	29.9	27.6	27.1	26.5	23.5	23.0
24	43.2	38.4	33.6	31.2	28.8	28.3	27.6	24.5	24.0
25	45.0	40.0	35.0	32.5	30.0	29.5	28.8	25.5	25.0
26	46.8	41.6	36.4	33.8	31.2	30.7	29.9	26.5	26.0
27	48.6	43.2	37.8	35.1	32.4	31.9	31.1	27.5	27.0
28	50.4	44.8	39.2	36.4	33.6	33.0	32.2	28.6	28.0
29	52.2	46.4	40.6	37.7	34.8	34.2	33.4	29.6	29.0
30	54.0	48.0	42.0	39.0	36.0	35.4	34.5	30.6	30.0
31	55.8	49.6	43.4	40.3	37.2	36.6	35.7	31.6	31.0
32	57.6	51.2	44.8	41.6	38.4	37.8	36.8	32.6	32.0
33	59.4	52.8	46.2	42.9	39.6	38.9	38.0	33.7	33.0
34	61.2	54.4	47.6	44.2	40.8	40.1	39.1	34.7	34.0
35	63.0	56.0	49.0	45.5	42.0	41.3	40.3	35.7	35.0
36	64.8	57.6	50.4	46.8	43.2	42.5	41.4	36.7	36.0
37	66.6	59.2	51.8	48.1	44.4	43.7	42.6	37.7	37.0
38	68.4	60.8	53.2	49.4	45.6	44.8	43.7	38.8	38.0
39	70.2	62.4	54.6	50.7	46.8	46.0	44.9	39.8	39.0
40	72.0	64.0	56.0	52.0	48.0	47.2	46.0	40.8	40.0

## Mounts and Brackets

### Mounts

#### 504778

Blender pole mount

#### 504776

Blender wall mount

#### 505013

Vertical pole mount - PM5900 and PM5950

#### 505014

Horizontal pole mount - PM5900 and PM5950

### Brackets

#### 505010

Monitor V mount bracket

Rear dovetail replacement - PM5900 and PM5950

#### 508420

Mounting bracket - PM5900 and PM5950

#### 505120

Screw for V mount bracket replacement - PM5900 and PM5950

#### 505189

Dovetail wall mount - PM5900

#### 506220

Pole - PM5400 and PM5500 series

#### 506032

Bracket - PM5400 and PM5500 series

#### 506347

Bracket/Pole Kit includes 2 brackets and 1 pole - PM5400 and PM5500 series

## Hose Assemblies

Outlet Type	Gas	Hose Length	Color	Conductive Hose Assembly to Blender
DISS	O <sub>2</sub>	6 ft	Green	HA-U1C4-01812
	Air	6 ft	Yellow	HA-U2C4-01608
	Heliox	3 ft	Clear	506248
	Custom Heliox	_ ft	Clear	505964/_ ft/ 504202/505964
Ohmeda	O <sub>2</sub>	6 ft	Green	HA-U1C4-01686
	Air	6 ft	Yellow	HA-U2C4-01497
Chemetron	O <sub>2</sub>	6 ft	Green	HA-U1C4-01731
	Air	6 ft	Yellow	HA-U2C4-01539

Other outlet configurations and custom assembly sizes are available upon request or by using the Custom Hose Configurator at [www.precisionmedical.com/fittings](http://www.precisionmedical.com/fittings).

## Flowmeters



1MFA1002-R



1MFA3502-L



1MFA8002-R



1MFA1102-L



Custom eliminators are available upon request.