

## Multiple-Patient-Use Anesthesia Circuits



***Protect patients, staff, and equipment while increasing efficiency and reducing costs***

### **Features**

- ▶ Pall anesthesia circuits may be used on an unlimited number of patients within a 24-hour period, as long as every new patient receives a fresh Pall Ultipor™ 25 filter<sup>1</sup>
- ▶ A variety of coaxial (single-limb) and dual-limb circuits are available
- ▶ Five mask sizes: one pediatric and four adult (small, medium, large and extra large)
- ▶ All components are latex-free

### **Benefits**

- ▶ Reduces the number of circuits used on a daily basis
- ▶ Decreases overall circuit costs
- ▶ Saves time by turning the operating room over more quickly in between procedures
- ▶ Generates less medical waste (approximately 2000 lbs less per year than single-use circuits), decreasing disposal costs<sup>2</sup>
- ▶ Protects patients and staff from machine contamination
- ▶ Protects machines from patient contamination

## Why Hospitals are Converting to Pall Multiple-Patient-Use Circuits

A single Pall anesthesia circuit can be used for all procedures performed within a 24-hour period, as long as each new patient is provided with a fresh Pall patient kit. Pall patient kits contain a mask, an Ultipor 25 heat and moisture exchanging filter, and a filter elbow. Four different mask sizes are available.

The advantages of using the same circuit for multiple patients are clear:

- ▶ Fewer circuits are used, saving money.
- ▶ Less medical waste is generated, decreasing disposal costs.
- ▶ Operating room turnover time is decreased, saving staff effort.
- ▶ Patients and staff are protected from machine contamination.
- ▶ Machines are protected from patient contamination.

The key to the ability to reuse circuits is the Pall Ultipor 25 Anesthesia Filter. Rigorous monodispersed testing of the hydrophobic Ultipor 25 filter with *B. diminuta* and MS-2 bacteriophage has demonstrated 4-5 log retention efficiency.<sup>3,4</sup> In addition, Vezina *et al.*<sup>5</sup> demonstrated superior retention of *M. chelonae* by the Ultipor 25 when compared to other brands of breathing filters. Ultipor 25 filtration efficacy is complemented by its patient heat and moisture retention capability. Both Pall dual-limb and coaxial (single-limb) circuit configurations may be reused with Pall patient kits.

## Ordering Information

### Anesthesia Circuits

Product Code	Description
BB25AB	Ultipor 25 Anesthesia Filter with Monitoring Port
BB25ABN	Ultipor 25 Anesthesia Filter with Monitoring Port and Elbow

### Adult Machine Kits

VM96DLEX	Adult 96" Expandable Dual-Limb Circuit, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag
VM96DLEX2L	Adult 96" Expandable Dual Limb Circuit with Removable Limbs, 0.060" CO <sub>2</sub> Gas Sampling Line, and 2-Liter Non-Latex Breathing Bag
VM96DLEX2LNC	Adult 96" Expandable Dual Limb Circuit with Removable Limbs and 2-Liter Non-Latex Breathing Bag, No Gas Sampling Line
VM40DLNEX	Adult 40" Nonexpandable Dual Limb, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag

### Adult Machine Kits

VM72DLNEX	Adult 72" Nonexpandable Dual Limb, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag
VM40COAX	Adult 40" Uni-Limb (Coaxial) with Expiratory Tubing attached @ 3-Way Inspiratory Port, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag
VM60COAX	Adult 60" Uni-Limb (Coaxial) with Expiratory Tubing attached @ 3-Way Inspiratory Port, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag
VM72COAX	Adult 72" Uni-Limb (Coaxial) with Expiratory Tubing attached @ 3-Way Inspiratory Port, 0.060" CO <sub>2</sub> Gas Sampling Line, and 3-Liter Non-Latex Breathing Bag

### Pediatric Machine Kits

VM96PDLEX	Pediatric 96" Expandable Dual Limb, 0.050" CO <sub>2</sub> Gas Sampling Line, and 1-Liter Non-Latex Breathing Bag
VM96PDLEXNC	Pediatric 96" Expandable Dual Limb and 1-Liter Non-Latex Breathing Bag, No Gas Sampling Line
VM72PCOAX	Pediatric 72" Uni-Limb (Coaxial) with Expiratory Tubing attached @ 3-Way Inspiratory Port, 0.050" CO <sub>2</sub> Gas Sampling Line, and 1-Liter Non-Latex Breathing Bag

### Miscellaneous Products

VMFLEX	Expandable 15 mm X 5-inch Flex Tube
VMPKELBO	15 mm X 22 mm Ported Elbow, Non-Sterile
CO2GSL060	3-Meter, 0.060" CO <sub>2</sub> Gas Sampling Line

### Patient Kits

VMPKSA	Small Vanilla-Scented Adult Face Mask, Ported Elbow, and Ultipor 25 Filter
VMPKMA	Medium Vanilla-Scented Adult Face Mask, Ported Elbow, and Ultipor 25 Filter
VMPKLA	Large Vanilla-Scented Adult Face Mask, Ported Elbow, and Ultipor 25 Filter
VMPKXL	Extra Large Vanilla-Scented Adult Face Mask, Ported Elbow, and Ultipor 25 Filter
VMPKPED	Pediatric Vanilla-Scented Face Mask, Ported Elbow, and Ultipor 25 Filter

### Breathing Bags (Bulk Packaged)

VM3LBB20	3-Liter Non-Latex Breathing Bag
VM2LBB20	2-Liter Non-Latex Breathing Bag
VM1LBB20	1-Liter Non-Latex Breathing Bag

### References

1. FDA 510(k) Number K013093 – August 1, 2002
2. Based on an annual procedure volume of 10,000 per year and an average of five patient procedures per circuit. Data on file at Pall Corporation.
3. Data was generated by Pall Corporation.
4. Duberstein, R. and G. Howard. 1978. Sterile filtration of gases: a bacterial aerosol challenge test. *J. Parent. Drug. Assoc.* 32(4):192-198.
5. Vezina, D.P., *et al.* 2004. An *in vivo* evaluation of the mycobacterial filtration efficiency of three breathing filters used in anesthesia. *Anesthesiology.* 101(1):104-109.



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