



Standard Specification for Minimum Performance and Safety Requirements for Anesthesia Breathing Systems¹

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^{ε1} NOTE—Missing symbols from Fig. 1 were reintroduced editorially in May 2002.

1. Scope

1.1 This specification covers breathing systems and components employed with anesthesia gas machines for humans. This specification considers the circle system as a whole and some of its components individually. A particular emphasis is placed upon component arrangement in the circle absorber-type system, and submits a system of standard description and notation. Excluded are ventilators for use during anesthesia, Mapelson nonrebreathing type systems, as well as breathing systems and related components of dental *analgesia* machines. (For rationale, see Appendix X1.)

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.3 This specification is arranged as follows:

	Section
Scope	1
Referenced Documents	2
Terminology	3
System Classification	4
Graphic Notations	
Diagrammatic Rules	
Functional Segments of the Circle System	
Test Procedures—General	5
Sterilization	6
Systems	7
Leakage of Breathing System	
Resistance of Breathing Systems	
Volume of Gas Not Delivered to Patient Due to Internal Compliance	
Monitoring Requirements	

Adjustable Pressure-Limiting (APL) Valves	8
Reservoir Bags	9
CO ₂ Absorbers	10
Unidirectional Valves	11
Requirements	
Test Procedure	
Optional Components	12
Breathing Tubes	13
Fresh Gas Inlet and Fresh Gas Supply Tube or Hose	14
Connectors	15
Pressure Gauges	16
Y-Piece and Breathing Tubes	17
Information in Labeling	18
Rationale	Appendix X1

2. Referenced Documents

2.1 ASTM Standards:

F 1054 Specification for Conical Fittings²

F 1204 Specification for Anesthesia Reservoir Bags³

F 1205 Specification for Anesthesia Breathing Tubes²

2.2 ANSI/ASME Standard:

ANSI/ASME B40.1M-1985 Standard for Pressure Gauge⁴

3. Terminology

3.1 Definitions:

3.1.1 *absorber assembly*—a container(s) for CO₂ absorbent, and may include, but need not be limited to, the inspiratory and expiratory unidirectional valves, APL valve, and bag mount.

3.1.2 *adjustable pressure limiting valve* (APL valve)—a user-adjustable valve which releases gas and is intended to provide control of the breathing system pressure.

¹ This specification is under the jurisdiction of ASTM Committee F29 on Anesthetic and Respiratory Equipment and is the direct responsibility of Subcommittee F29.10 on Anesthesia Workstations.

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² *Annual Book of ASTM Standards*, Vol 13.01.

³ Discontinued; See 2001 *Annual Book of ASTM Standards*, Vol 13.01.

⁴ Available from the American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.