



Standard Specification for Bronchoscopes (Rigid)¹

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1. Scope

1.1 This specification covers definitions and requirements for rigid bronchoscopes and certain bronchoscopic accessories used in the practice of medicine.

2. Referenced Documents

2.1 *ASTM Standards*:²

F1054 Specification for Conical Fittings (Withdrawn 2005)³

3. Terminology

3.1 *Definitions*:

3.1.1 *bronchoscopes (rigid)*—a medical instrument having viewing means, with or without optics, introduced into the larynx or tracheobronchial airway, or both, through a natural or surgically created body opening for examination, diagnosis, or therapy, and intended to be unyielding to natural or surgically created body cavities.

3.1.2 *optical endoscope*—a medical instrument with optics, having viewing means, which may be introduced into a body cavity through a bronchoscope, or through a naturally or surgically created body opening for examination, diagnosis, or therapy. An optical endoscope may be of rigid or flexible design.

3.1.3 *endoscopic accessory*—a medical instrument inserted through a bronchoscope for diagnosis or therapy.

3.1.3.1 *rigid accessory*—an accessory whose insertion portion is intended to be unyielding to natural or surgically created body cavities or instrument lumens.

3.1.3.2 *flexible accessory*—an accessory whose insertion portion is intended to conform to natural or surgically created body cavities or instrument lumens.

¹ This specification is under the jurisdiction of ASTM Committee F29 on Anesthetic and Respiratory Equipment and is the direct responsibility of Subcommittee F29.12 on Airways, Bronchoscopes and Laryngoscopes.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

3.1.3.3 *Discussion*—The intent is to include forceps, snares, electrodes, and other such instruments which can be passed through a bronchoscope or with a bronchoscope through another accessory. The intent is also to exclude certain instruments, such as electrosurgical units, light sources, other such instruments, and ventilation systems external to the bronchoscope.

3.1.4 *distal*—the location of that portion of a bronchoscope or endoscopic accessory which is farther from the user than some reference point.

3.1.4.1 *Discussion*—The terms given in 3.1.4 and 3.1.5, commonly used in endoscopy, are defined in their most general form to avoid the need for such definitions as “distal tip,” “distal end,” “area proximal to ...,” “X cm distal to the ...”

3.1.5 *proximal*—the location of that portion of a bronchoscope or endoscopic accessory which is closer to the user than some reference point.

3.1.5.1 See 3.1.4.

3.1.6 *insertion portion*—that portion of a bronchoscope or endoscopic accessory which is intended to be inserted into a natural or surgically created body opening; or which is intended to be inserted into the lumen of a bronchoscope or endoscopic accessory.

3.1.6.1 *Discussion*—Although the term defined seems self-explanatory, different expressions for the same portion of the instrument are used by different manufacturers.

3.1.7 *maximum insertion portion width*—the maximum external width of a bronchoscope or endoscopic accessory throughout the length of the insertion portion.

3.1.7.1 *Discussion*—By defining external sizes as maxima and internal sizes as minima, sufficient instrument information for selection of an instrument will be provided to users.

3.1.8 *minimum lumen width*—the minimum internal width of a bronchoscope or endoscopic accessory through which a bronchoscope or endoscopic accessory is intended to pass.

3.1.8.1 See 3.1.7.

3.1.9 *working length*—the maximum length of the insertion portion.

3.1.10 *overall length*—the distance between the proximal and distal ends of a rigid bronchoscope or bronchoscopic accessory, expressed in metric units.

3.1.11 *field of view*—the size of the object field viewed through an optical endoscope and stated by the vertex angle (in