

GLOSSARY OF TERMS

AQL (ACCEPTABLE QUALITY LEVELS): A statistical method of sampling by which a predetermined percentage of parts can be accepted as a process average.

ANGLE OF ROTATION: The included angle of the Diamond Point.

ANNEAL: To subject metal to high heat with a subsequent cooling to make it more malleable.

ANODIZE: To subject aluminum to an electrolytic action in order to coat it with a protective film.

ANTICORE BLAST: A blasting operation to dull the heel of the bevel in order to reduce coring.

ASSEMBLY: A cannula plus a hub (also may include packaging and/or protective material or internal components such as filters, diaphragms, etc.)

BEVEL: The angled surface formed on the cannula when a needle point is ground. A typical diamond point has three bevels. The main bevel is partially ground away to form two side bevels.

BEVEL LENGTH: The longest distance of the bevel, usually measured from the tip of the needle to the most proximal area of grinding behind the heel. Side Bevel Length is measured between 1) the juncture of side bevel and the outside surface of tubing and 2) the tip of the needle.

BURRS: Deflection of the point, perceptible to feel.

CANNULA: Small pointed hollow stainless steel tube for insertion into the body (When hub is added it becomes a "NEEDLE").

CHAMFER: The blending of the O.D. into the I.D., which is formed by angle or radius.

CLEAN: Free from dirt or pollution (Not sterile).

CORING: The cutting of a plug of tissue or port septum when the needle passes through.

CRUXE: The point of the inside wall where the primary and secondary angle meet after rotation.

CUTOFF: Tubing cut to length with no round bevel.

DIAMOND POINT: The length of the secondary angle after rotation, which is measured from the tip to the longest outside grind.

DISTAL END: The end of the needle farthest from the hub.

FEATHER: A thin portion of metal on the cannula that could potentially break off during use.

FLARE: To spread or curve outward. Pertaining to a cannula, it is the spreading of the tubing to a larger diameter.

FLASH: Excessive material on plastic, usually occurring at the mold parting lines.

FREE LENGTH (or NEEDLE LENGTH): The distance between the point of the cannula and the point where the hub starts; i.e., only the distance the cannula is exposed not covered by the hub. Sometimes referred to as USABLE LENGTH.

GG-N-00193: Interim Federal Specification covering sterile disposable hypodermic needles with regular bevel point.

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GG-N-196: U.S. Government Specification regarding medical cannula and needles.

GAUGE: O.D. of the needle or cannula, expressed as a Stubs Gauge Number (See tubing specification chart).

GRIT BLAST: An extra heavy blast on the heel for 1) anti-coring, or 2) to roughen the O.D. of the cannula.

HEEL OF BEVEL: The proximal rounded inner-edge of the point lumen.

HOOK: A burr where a deflection of the point is in excess of .002 inches.

HUB: The part attached to the cannula to make a needle, to enable it to be attached to a syringe or other device.

HUBER POINT: A point which is bent to allow the opening to be on the side.

I.D.: Internal diameter of tubing.

INTRA-ARTERIAL: Within an artery.

INTRADERMAL: Within the skin.

INTRAMUSCULAR: Within the substance of a muscle.

INTRAVENOUS: Within a vein.

INSERT MOLDING: Method of inserting a cannula during a plastic molding process.

LUER LOCK: A part which locks a needle to a syringe by means of a threaded hub.

LUER TAPER: This taper is standardized by the American Standard Association's Standard 270.1-1955.

LUMEN: The hole through the cannula tube.

MICRON: A unit of length -- a thousandth part of one millimeter.

NEEDLE (or NEEDLE ASSEMBLY): A cannula with a hub attached.

O.D.: Outside diameter of tubing.

OBTURATOR: A solid rod having a handle, used to occlude the lumen of a needle.

OCCLUDE: To block or close off.

OPTICAL COMPARATOR: An electronic device used to inspect and measure the angular configuration of bevel characteristics on the cannula after grinding.

OVERALL LENGTH: The full length of the needle – from the point of the cannula to the farthest end of the hub; i.e. includes the part of the cannula covered by the hub.

PARTICULATE MATTER: Any foreign substance contaminating a parenteral solution. These particles can be characterized according to their morphological and optical properties and evaluated under high magnification.

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PATENTERAL INJECTION: Injection of substances into the body through any route other than via the alimentary canal; such as subcutaneous, intravenous, intramuscular or intrathecal injection.

PERMEABILITY: The property of stainless steel tubing which determines its relative influence in a magnetic field. This characteristic is often specified by customers depending on the end use of the product.

PENETRATION TESTS: Testing procedure used to measure the sharpness or penetration characteristics of a cannula when passed through a standard membrane. Spectra uses a Lloyd penetration tester for this purpose.

PROXIMAL END: The end of the cannula closest to the hub.

PYROGEN: A fever-inducing substance. Cleanliness in all phases of manufacturing and handling is essential to avoid a pyrogenic product.

STERILE: Free from living microorganisms.

STUBS NEEDLE GAUGE: A system denoting O.D. size of a cannula. This is stated in numbers ranging from 7 through 35 – the larger the number is the smaller the needle is. (See tubing specification chart.)

STYLET: A solid rod with a handle. The tip is ground to fit the bevel of the needle through which it is run. This stylet, when introduced with the needle, helps prevent coring.

SUBCUTANEOUS: Under the skin.

SWAGING: 1) A method for crimping a hub onto a cannula by the use of pressure. 2) A process for shaping by compressing the O.D. of the cannula.

TROCAR: A three sided, sharp, pointed stylet fitted with a cannula to be inserted into a body cavity.

VENIPUNCTURE: The puncture of a vein with a needle.

WALL TYPES: The tubing wall is described by one of the following:

- RW: Regular wall
- TW: Thin wall
- SPTW or XTW: Special or extra-thin wall

Notice: Every effort has been made to depict and describe the product accurately; however, we reserve the right to alter and make modifications to certain products from time to time and without notice. Measurements may vary slightly.