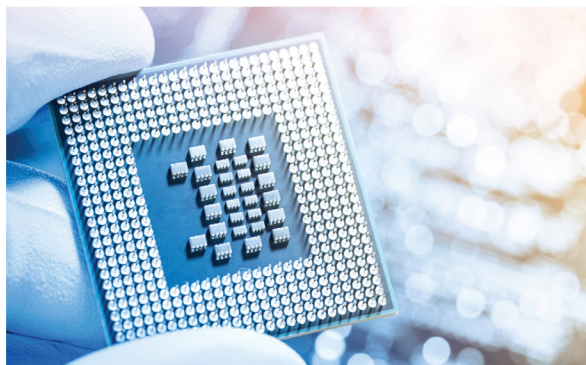


OXYGEN CLEANED & CAPPED TUBING



Special cleaning in oxygen service is not only important for cleanliness but is also critical for safety. In order to handle the flow of oxygen safely, it is important to ensure that the path through which the gas will travel is free from particulates and lubricants that can lead to unintentional combustion. Oxygen cleaned and capped tubing has been specially prepared in a clean room to support product purity and eliminate combustion potential.

CLEANING SPECIFICATIONS (CGA G-4.1, ASTM G93-03, ASTM A380)

SIZE RANGE (316/L)

Outside Diameter (OD)	Wall Thickness
1/8" - 1"	.028" - .065"

OXYGEN CLEANING PROCESS

The process that our oxygen cleaned products go through meets the ASTM and CGA specifications listed below. An initial inspection is performed to identify any significant contaminants. The product is then meticulously cleaned and/or passivated, rinsed, and dried to ensure removal of even the slightest debris. Immediately upon completion of a final inspection, the product is capped and ultimately bagged while still inside the clean room environment to ensure the highest level of cleanliness and prevent post-cleaning contamination.

OXYGEN CLEANED MATERIAL IN STOCK

TWR-Supply holds a stock of 316/L domestic tubing cleaned and capped for oxygen service in the select sizes listed below. If we do not have what you are looking for in stock, just ask. All tubing, coils, pipe and fittings offered can be oxygen cleaned as a special order.

TYPICAL APPLICATIONS

Semiconductor Fabrication
Clean Room Applications
Oxygen Enriched Environments
Gas Chromatography

ELECTROPOLISHED (EP) TUBING



For applications with surface finish requirements well beyond the quality realized in a standard mill finish, TWR maintains an inventory of electropolished tubing (EP) in diameters ranging from 1/8" through 1". Through submersion in an electrically charged electrolyte solution bath, a smooth uniform surface is created by dissolving imperfections. This process removes any contamination on, or just below, the tube's surface and passivates it, bolstering the corrosion resistance of the steel.

CLEANING SPECIFICATIONS (ASTM A269, A632, A1016)

SIZE RANGE

Outside Diameter (OD)	Wall Thickness
1/8" - 1"	.028" - .065"

CERTIFIED CLEANLINESS

The pharmaceutical, petro-chemical, food & beverage and semi-conductor industries all contain utilizations where fine smoothing of the tube is critical for heightened cleanliness, the removal of occluded gases or friction reduction imperatives.

Stocked in a 316/316L chemistry with a maximum hardness of RB 90, the surface finish of the tube internal surface is certified to have a maximum roughness of 10 micro-inches Ra. The governing specifications for EP tubing are ASTM A269, A632 and A1016.

In ISO Class 4 clean room conditions, each tube is purged with ultra high purity (UHP) nitrogen and then capped and double bagged. Certification qualifying the tubing's production standards, chemical composition, material traceability and maximum surface roughness is provided for all material.

TYPICAL APPLICATIONS

Semiconductor Fabrication
Food & Beverage Industries
Pharmaceutical Manufacturing
Petro-Chemical Industries