



Product Note, PN 436

Product Cleaning for Oxygen Service

May 22, 2015

All AP Tech products meet or exceed requirements of CGA4.1 1996 "Cleaning Equipment for O2 Service". AP Tech's cleaning processes incorporate cleaning methods recommended in ASTM G93-96 "Standard Practice for Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments".

The AK, BP, KT and VS product series are designed and manufactured for high purity (HP) specialty gas delivery applications in general industry.

The AP, AZ, BZ and SL product series are designed and manufactured for ultra high purity (UHP) gas delivery in 'clean' industries such as semiconductor manufacturing. The cleanliness requirements for the UHP gas market are much more demanding than the general, industrial market. The UHP cleaning procedures encompass the same initial cleaning process as the HP products plus additional final cleaning processes. The additional steps for UHP products include electropolishing coupled with a final ultrasonic cleaning with UHP deionized water in a cleanroom environment.

It should also be noted that non-wetted (not exposed to process gas) lubricants are oxidizer compatible.

All AP Tech product series for gas delivery are, therefore, deemed cleaned for Oxygen service. HP product series have been verified to comply with the oxygen cleaning requirements as outlined in the CGA document. The UHP product series exceed general industry oxygen cleaning requirements, complying with the more stringent UHP cleanliness requirements.