



Chemical Injection Technologies

Technical Bulletin

Certification and/or Approval of Gas Chlorinators

We are often asked to provide some form of certification or approval for our SUPERIOR™ Gas Chlorinators. Usually these requests name The Chlorine Institute, Inc. or The National Sanitation Foundation (NSF) as authorities for such certification. However, neither of these organizations provide any certification or approvals for any gas chlorinators.

The Chlorine Institute, Inc. States in their literature that it “does not approve, rate, certify, or endorse any product or construction except for certain equipment used in transportation”. While NSF does have an approval system for chemical dosing pumps, they do not approve or certify gas chlorinators. This may be the source for some of the confusion. There are numerous standards around the world for chemical dosing pumps and when these pumps are used to feed sodium hypochlorite (bleach) they are often referred to as “Chlorinators”. Hence, people are led to believe that there is, indeed, a means to have “Gas” Chlorinators certified and/or approved.

There are, however, no comparable standards, certifications or approvals available for gas chlorinators. It has been left up to the various manufacturers to use materials that have been tested for compatibility with chlorine gas and to test their designs for safety and accuracy. No industry standards¹ exist. Periodic efforts by some manufacturers and individuals (including principles of C.I.T.) over the past 20 years, to interest testing laboratories and recognized authorities in creating a series of standards, have all met with failure.

Occasionally, ISO 9000 (or 9001) is referenced as a certification for gas chlorinators. However, ISO certification has nothing to do with any testing or approval of the gas chlorination equipment. There are NO ISO 9000 STANDARDS FOR GAS CHLORINATORS. ISO 9000 certification only refers to adherence to a quality control system of management. It does not mean that the equipment will withstand chlorine attack or corrosion, or that the materials of construction are in any way acceptable for use with gas chlorine, or that the equipment meets any standard of performance.

SUPERIOR™ Gas Chlorinators have undergone some of the most strenuous testing possible. Inlet pressures up to 2,000 psig have been applied for extended periods to ensure a factor of safety that is at least 20 times that which would normally be encountered. All materials of construction have either been in long use by the gas chlorinator industry or are newer, improved materials that have been thoroughly tested for their resistance to all forms of chlorine (see Technical Bulletin 5004, SUPERIOR™ Gas Chlorinators Material of Construction).