



# Chemical Injection Technologies

## Technical Bulletin

### SUPERIOR Gas Chlorinators Up to 500PPD (10 KG/HR) Materials of Construction

This table lists the materials used in the manufacture of SUPERIOR Gas Chlorinators. Wet chlorine gas, liquid (elemental) chlorine, and chlorine solutions are known to be highly corrosive to most common metals and incompatible with many plastics. All materials of construction in SUPERIOR Gas Chlorinators have been thoroughly tested for compatibility with all three forms of chlorine.

|   | PART DESCRIPTION                    | MATERIAL OF CONSTRUCTION        |
|---|-------------------------------------|---------------------------------|
| V<br>A<br>C<br>U<br>U<br>M<br><br>R<br>E<br>G<br>U<br>L<br>A<br>T<br>O<br>R | BODY ASSEMBLY - MOLDED              | ABS - GLASS REINFORCED          |
|   | DIAPHRAGM PLATES - MOLDED           | ABS - GLASS REINFORCED          |
|   | GASKETS & O-RINGS                   | VITON® (LITHARGE CURED)         |
|   | BODY AND YOKE BOLTS                 | TITANIUM*                       |
|   | MAIN REGULATING SPRING              | TANTALLUM ALLOY*                |
|   | DIAPHRAGM                           | HALAR® (ECTFE)*                 |
|   | INLET VALVE PLUG                    | ALLOY "K"*                      |
|   | INLET VALVE SEAT                    | TEFLON®                         |
|   | INLET ADAPTER                       | KYNAR® (PVDF)*                  |
|   | INLET CAPSULE HOUSING               | KYNAR® (PVDF)                   |
|   | INLET FILTER                        | PROPRIETARY - 25 MICRON CERAMIC |
|   | YOKE ASSEMBLY                       | 0.020" HALAR® OVER STEEL        |
| M<br>E<br>T<br>E<br>R   | METER PANEL BODY - MOLDED           | ABS - GLASS REINFORCED          |
|   | FLOW TUBE                           | BOROSILICATE GLASS              |
|   | GASKETS & O-RINGS                   | VITON® (LITHARGE CURED)         |
|   | RATE VALVE SEAT, KNOB & PLUG SHAFT  | KYNAR® (PVDF)                   |
|   | RATE VALVE METERING TIP             | ALLOY "K"*                      |
| E<br>J<br>E<br>C<br>T<br>O<br>R   | CHECK VALVE & EJECTOR BODY - MOLDED | ABS - GLASS REINFORCED          |
|   | NOZZLE (VENTURI)                    | ABS - GLASS REINFORCED          |
|   | SPRING                              | TANTALLUM ALLOY*                |
|   | DIAPHRAGM                           | TEFLON®                         |
|   | HIGH PRESSURE CHECK VALVE           | VITON® (LITHARGE CURED)         |
|   | O-RINGS                             | VITON® (LITHARGE CURED)         |
|   | DIFFUSER                            | ABS - (GLASS REINFORCED)        |
| M<br>I<br>S<br>C  | WATER/SOLUTION GASKETS              | KOROSEAL                        |
|   | VACUUM TUBING CONNECTIONS           | KYNAR® (PVDF)                   |
|   | VACUUM TUBING                       | POLYETHYLENE (CARBON BLACK)     |

\* THESE PARTS ARE WARRANTED FOR THE LIFE OF THE EQUIPMENT.

NOTE: ALLOY "K" IS A PROPRIETARY METAL THAT IS BOTH MORE INERT, AND STRONGER, THAN SILVER IN WET, DRY OR LIQUID CHLORINE OR SO2 GAS.