PROCESS TANK MIXING – PLANT AIR SYSTEMS

“Use High Pressure Compressed Air Systems to Mix Tanks with High Strength Elastomer Nozzles”

Plant air distribution systems are typically high pressure and low volume capacity. The energy provided by the high pressure discharge can be applied in enhancing the mixing within smaller process blending vessels. Many manufacturing process solutions are heavier in density and contain solids that are conducive to clogging mixing equipment.

The Tideflex High Pressure Elastomeric Nozzles are constructed to withstand the forces generated by a high pressure discharge nozzle within a fluid solution. The nozzle acts as a reverse flow inhibitor and check valve protecting the air manifold piping from exposure to the process fluid. These nozzles can be fabricated from an assortment of different elastomers including food grade EPDM for food processing vessels.

These high pressure mixing nozzles are also effective in mixing powders, granulated media and other dry solids. The nozzles can be directed towards tank outlets within hopper bins to prevent bridging from occurring in lieu of applying vibratory equipment. Transfer stations for railcar unloading can be equipped with compressors on-site and connected to a pre-installed sparging manifold within the tank car to roll the contents during the unloading process to aide in the flow of the solids through the outlets.

Unique Performance Features

- Suitable with High Pressure Systems
- Provides Backflow Prevention of Process Fluids/Solids
- Various Elastomers Available
- Compact Design

Tideflex Technologies / Red Valve Company holds the patent for elastomer duckbill diffusers and their incorporation into a multiport diffuser piping system. Any suppliers of systems incorporating duckbill diffusers would need authorization from Tideflex Technologies / Red Valve Company. Soliciting of systems incorporating Tideflex diffusers by others without the consent of Tideflex Technologies constitutes intent to violate the patent protection of this product and is subject to the penalties defined within the Patent Protection Laws of the United States.

US Patent No. 6,016,839 / 6,193,220 / 6,372,140 / 6,702,263
Canada Patent No. 2,366,252 / 2,385,902; United Kingdom Patent No. 2,326,603