



Pressurized Solution Feed (PSF)

The ultimate CO₂ pH Control System. Where CO₂ efficiencies are important and precise pH control is required, TOMCO₂ Systems' PSF system will fulfill these needs.

TOMCO₂ Systems' PSF system is designed to utilize ninety-five percent of the CO₂ gas required to reduce the pH of most water. We can accomplish this by forcing the CO₂ gas into a solution under high pressure and forcing this gas to remain in solution until injected into the water to be treated. The carbonated solution, which is not carbonic acid and excess CO₂, is injected through a specially designed injector which maintains the PSF system's pressure. This allows the excess CO₂ gas, if any, to be released as an effervescence, which is immediately consumed by the water being treated. Because of this process, the chemical reaction time is much less, allowing pH probes to be placed closer to the injection point. With pH probes located 60-90 seconds from the PSF injection, extremely close control of the pH can be maintained.

By forcing the shortened chemical reaction times, the unique design of the PSF system allows recarbonation basins to be much smaller than previously required. With most municipal lime softened waters, 99.9% of the chemical reaction has taken place within three minutes of the carbonic acid injection. The pH is controlled and the water is stabilized within this three minute period.

TOMCO₂ Systems' PSF can be installed into your plant where other CO₂ pH control systems will not perform properly. The PSF system can be installed into pipelines, troughs, tanks, basins or any location which has a minimal 18" (46 cm) submergence and 60-90 seconds retention time for PSF injection.

TOMCO₂ Systems' PSF system can reduce construction and installation costs, then reduce chemical costs while providing the best possible pH control and water stability.

