

The Ammonia-Free CataStak™ SCR System with Urea Direct Injection

The Nationwide Boiler Ammonia-Free CataStak™ SCR System is the industry's choice for maximum NOx control using an environmentally safe 32.5% liquid urea as an alternative to ammonia. Commonly known as diesel exhaust fluid (DEF), this is the ideal solution for customers adverse to handling and storing ammonia but interested in the superior NOx reduction and operating performance of a proven SCR system.

The Ammonia-Free CataStak™ SCR System utilizes direct injection to spray urea into the hot flue gas upstream of the catalyst bed. The urea decomposes to ammonia and mixes with the flue gas before passing over the catalyst bed. The NOx and ammonia is converted to simple nitrogen and water, resulting in over 90% NOx removal and less than 10 ppm ammonia slip.

The urea flow control skid consists of a control panel with PLC touch screen HMI and air-atomizing injectors. A day tank can be supplied for storage, or standard urea totes can be utilized. The innovative design and features of this pre-packaged injection system assures precise metered urea flow for maximum NOx reduction and minimum ammonia slip. Now customers have a safe alternative to ammonia based SCR systems with dependable results.

Contact Nationwide Boiler today and ask how your boiler, fired heater, gas turbine, or other fired equipment can easily and safely meet NOx emissions as low as 2½ ppm with a CataStak™ SCR system. Call us toll free at (800) 227-1966 for more information.

Quick Facts About Urea (DEF)

- Mixture of high purity, synthetic, automotive grade urea and deionized water
- Non-hazardous, non-flammable, non-toxic, and non-explosive
- Classified as minimum risk
- Safe to touch skin
- Most diesel-powered on-road vehicles produced since 2010 utilize SCR technology and DEF
- Safe alternative to ammonia

