

Sioux Equipment for Urea Blending

"Diesel engines sold in the United States must meet stringent U.S. Environmental Protection Agency (EPA) emissions requirements. To meet these requirements, many diesel engine manufacturers use Selective Catalytic Reduction (SCR), an emissions aftertreatment technology that converts nitrogen oxides (NOx) in the diesel-engine exhaust stream into nitrogen and water vapor, two natural components in the air we breathe.

Diesel exhaust fluid (also referred to as DEF or AUS 32) is injected into the diesel exhaust stream and the heat from the exhaust, the fluid, and a catalyst convert the NOx into the harmless gases. Diesel exhaust fluid is a 32.5% solution of technically pure urea in purified water. For the SCR unit to operate properly, the DEF must meet an exacting purity standard."

<https://www.api.org/products-and-services/diesel-exhaust-fluid#tab-def-aus-32>

Fertilizer manufacturers also blend urea in producing specialized fertilizer mixes.

Heating Urea to Unload from Rail Tank Cars

Steam from a low-pressure steam generator is an excellent method to heat liquid urea solutions to the temperature needed for unloading at urea blending facilities. Steam generators are easy to operate and can be fully operational in minutes. Steam generators can use either diesel, natural gas, or propane as their fuel source, and require a simple water source and 115V electricity. A mobile low-pressure steam generator is a great solution for transload facilities. Mobile units are self-contained with a water tank, fuel source, and diesel fired electric generator.



Heating Pure Water for DEF or Heating Water for Fertilizer Production

When manufacturing DEF and fertilizer from prill or granular form hot water is very beneficial due to the endothermic reaction that occurs. Sioux's water heaters with a 316 stainless steel heating coil and non ferrous wetted components are ideal to heat water for both DEF and fertilizer applications. Sioux manufactures a range of heaters from 1 million to 5 million BTU's for these applications.



Sioux Corporation has been manufacturing low-pressure steam generators since 1939. If you are ready to learn more about Sioux's steam generators and water heaters, contact us and we can help you find the best solution for your application.

SIOUX CORPORATION . One Sioux Plaza . Beresford, SD 57004
(605) 763-3333 . (888) 763-8833 . sioux.com