

Temporary On-Site Sorbent Injection

SORB-N-JECT™ **Technology**

for SO_2 , SO_3 , Hg, HCl
Emissions Mitigation



Answering questions about the use of powdered sorbents for emissions mitigation in electricity-generating facilities just got easier. Nol-Tec Systems now offers its proven Sorb-N-Ject™ Technology in a variety of portable, temporary/demonstrative designs. These systems are small but complete -- enabling on-site testing, fact finding, and adjustment prior to full-scale system design, installation and start-up.

How It Works

Our portable configuration simulates full Sorb-N-Ject™ System functionality, but is designed on a smaller scale, usually contained in just two units.

The first unit holds and feeds the sorbent -- choose a vertical silo, a horizontal silo, or a bulk bag unloader, depending on your needs.

The second unit is a semi-trailer (shown above) housing the components that make the portable system operate: blowers, compressors, heat exchanger, electrical controls, piping, etc.

Nol-Tec sets-up the system, including piping to the injection sites. We also dismantle and remove it when the testing and/or temporary period is completed to your satisfaction.



You may have already determined the sorbent most effective for removing the pollutants from your emissions; however, if you're considering various materials, Sorb-N-Ject™ Technology and our portable system can aid your decision process with thorough & accurate testing.

Typical Sorbent Materials

- Hydrated Lime
- Trona
- Sodium Bicarbonate
- Powdered Activated Carbon

Testing time ranges from a few weeks to many months. Temporary injection coverage, while the permanent system is being installed, typically runs 2 to 6 months.

See photos & descriptions of arrangement options on next page.

WHY Use a Temporary System?

- Test effectiveness of various sorbents
- Determine proper injection locations
- Verify quantity of chemical required
- Provide temporary sorbent injection while permanent system is being installed
- Provide temporary injection as needed, such as during the ozone season



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SORB-N-JECT™ Technology

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PORTABLE SYSTEM ARRANGEMENT CHOICES



Vertical Silo

Nol-Tec's portable, vertical silo is installed on a customer-supplied concrete pad and filled with sorbent using a pressure differential, self-unloading truck. A separate tractor trailer contains the motive air blowers, compressor, air dryer, air surge tank, heat exchanger, electrical controls, and conveying line piping components to volumetrically discharge the materials as required. You provide the sorbent, electrical power, and injection lances on the duct.



The vertical silo is easily transported to site.



Bulk Bag Unloader

Nol-Tec supplies a pre-assembled portable bulk bag unloader, along with the loss-in-weight feed system and all electrical controls needed to operate the system. A blower package, heat exchanger and conveying line components are shipped separately. You supply bagged sorbent, electrical power, and compressed air.

This system can be used in conjunction with the vertical silo: the vertical silo is the storage vessel and a small pneumatic system transfers sorbent from the silo into the hopper of the bulk bag unloader.



Horizontal Silo

This configuration is contained on two trailers: one holds a pressurized vessel for the powdered dry sorbent, and the other holds 2 gravimetric feed hoppers, compressor, and the automated controls for the test system. You supply sorbent, electrical power, and compressed air.

Because the Nol-Tec weigh hoppers are fairly small, at only 350 ft³ each, the weighing system is more precise than those found on large test rigs. The amount of sorbent allowed into the injection system is accurately measured and monitored. Injection rates, volumetric balance, and other system design factors for the full Sorb-N-Ject™ System are tested and adjusted to exactly suit your particular site. Having two hoppers enables the continuous operation of weighing and injecting, because refill times are alternated. Refill, weighing, and measurement are automated via the PLC.

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