

INFORMATION SHEET

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Mobile Silo System for Dosing PAC Into Flue Gas Streams

Powdered activated carbon (PAC) injection into flue gas streams is widely recognized as a cost effective method to control mercury emissions from coal fired power plants. This technology is also effective for dioxin and mercury removal from flue gas generated by municipal waste combustors, industrial incinerators and boilers, and metal smelters or furnaces. The Norit Americas Mobile Silo System is specifically designed for temporary use in full scale plant test programs to evaluate PAC injection technology for control of mercury or dioxin emissions. After testing is completed, the Mobile Silo System may readily be moved by flatbed trailer to another plant site. The Mobile Silo System will store PAC in bulk (40,000 lbs or more), and pneumatically convey a continuously adjustable PAC dosage into a flue gas stream. Customized systems are available to meet individual needs of the end customer. All units share the following features:

Features

- Mobile, Readily Moved by Flatbed Trailer
- Lease, Lease-Purchase, or Purchase
- Prefabricated Unit for Fast Installation
- Dust Free Operation
- Accurate and Continuous Dosing of PAC
- Automatic Unattended Operation
- Low Maintenance Design, Long Service Life
- Remote Control / Alarm Interface Standard
- Fully Featured PLC Based Control System

Advantages

- Mobile, Use at Multiple Sites for Plant Tests
- Reduced Housekeeping and Labor Costs
- Warehouse Space not Required
- Minimal Operator Attendance Required
- Bulk Trailer Delivery of PAC

Options

- Turnkey Project or Silo Unit Only Supply
- Multiple Feed Systems from One Silo
- Hoist for Filling Silo from Bulk Bags
- Loss-In-Weight Systems
- Batch Feed & Custom Designs Available
- Mass Flow / Plant Pacing Control
- Remote Telemetry / Automated Ordering
- Construction, Startup, & Training Support



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The Norit Americas Mobile Silo System is prefabricated and arrives at the plant site on a flatbed trailer. On-site construction is greatly reduced and disturbance to ongoing plant operations is minimal. Once the silo foundation is prepared, the silo is lifted into place and the interconnecting piping and electrical connections are completed. The PAC transfer and injection piping is easily installed using compression fittings and schedule 40 pipe with long radius sweeps. The assembled and calibrated system is then ready to dose PAC.



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PAC is loaded into the silo from bulk trailers with no required operator intervention. A local control panel is supplied to furnish level indication, preventing the silo from being overfilled. The bin vent filter cleaning cycle automatically engages when the fill begins. PAC is metered from the silo by a volumetric feeder into an eductor. A motive air stream transfers the carbon to the point of injection into the flue gas stream.



The Mobile Silo System may also be fitted with a hoist on top, and modified to allow filling of the silo with PAC from bulk bags. This option is more labor intensive, but provides a mechanism for short duration test programs using smaller quantities of PAC.

Norit Americas Inc. is pleased to be able to offer our PAC customers the extensive expertise developed in the manufacture and handling of over one hundred million pounds of activated carbon per year. Our systems are designed to be clean, accurate and user friendly. For additional information, a complete equipment specification, or a customized proposal, please contact our Systems & Service group at (800) 641-9245, or by email at info@norit-americas.com.