



# POWDER HANDLING SOLUTIONS

## De Dietrich Process Systems Solids Transfer Testing Capabilities

Whether you are reconfiguring an existing process or designing a new system, a critical factor in system design is ensuring your material will pneumatically transfer reliably, efficiently, and at the rates and distances required. To help address those questions, De Dietrich Process Systems can conduct solids transfer testing at our Charlotte, NC facility.

At our test center, we utilize QVF glass Powder Pump units, which provide a unique perspective on what is occurring inside the Powder Pump body, including:

- fill rates and cycle time setting
- filter media performance, including blinding and cleaning issues
- ease of material discharge from the Powder Pump body

Conductive, transparent transfer hose is also used during testing. This allows us to observe material flow characteristics, including plugging issues and how well the hose can be cleaned of residual material at the end of a batch.

With this information, DDPS Powder Handling Specialists can more thoroughly assess the transfer properties of your material and provide the appropriate equipment design, control functionality, and system layout for optimized performance.



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## What is the timeline/procedure for material testing?

1. Receipt of [Powder Handling Application Questionnaire](#) and MSDS from customer.
2. Review and acceptance by DDPS.
3. Customer issued purchase order and shipment of material.
4. Test date confirmation following material arrival.
5. Material testing and return to customer.
6. Issuance of test report.

## What type of packaging should the powder be shipped in?

### How much is needed to conduct testing?

There are four options for sending in your material:

- Super sacks – 1 full bag and 1 empty bag
- 30 gal. fiber drums – 2 full drums (empty drums will be provided)
- 55 gal. metal drums – 1 full drum and 1 empty drum
- 50 lb. bags – 6 to 7 bags (any not used will be returned unopened)

## How is testing performed?

The test equipment is set up to match the application requirements as closely as possible, including:

- Transfer height (24' maximum)
- Total transfer distance and hose routing
- Material container handling (bulk bags, drums, small bags)

## How long does the testing process take?

1/2 - 1 day. In some cases (e.g. multiple products, larger system), additional time may be required.

## What type of data is obtained from testing?

We determine process and system design requirements, including:

- System cycle times
- Mass transfer rate(s)
- Solids/Gas loading ratios
- Material flow promotion requirements (e.g. hopper discharge issues, gas injection points)

Download a copy of the [Solids Transfer Test Report](#) for additional details.

## Does DDPS provide a process guarantee after testing?

Yes.

## What if my powder is toxic/hazardous/explosive?

DDPS can handle most materials, but if your powder is deemed too toxic or hazardous by our staff, rental units for on-site testing at your facility are also available. Please see our [Rental Agreement](#) for more information.

## Does it cost anything to have your material tested?

Yes, DDPS charges a nominal fee for testing. Additionally, shipping test material to and from the DDPS Charlotte facility is the customer's responsibility. If an order is placed, the initial fee will be credited towards your order. Contact [sales@ddpsinc.com](mailto:sales@ddpsinc.com) for more information.

