# Spirof OV Water Treatment

Application Study #7002

# Discharging & Metering Dry Water Treatment Chemicals



Spiroflow Type 6 Bulk Bag Discharger



Spiroflow Flexible Screw Conveyor & the Ejector Dosing Equipment

#### **Customer Requirements**

# Water authorities, steelworks & chemical plants that use large volumes of water are required to return used water at minimum pollutant levels.

To find an unloader that met these specifications, Kuhn and some of his fellow engineers attended a powder show in Charlotte, NC. At the Spiroflow booth, Kuhn found exactly what he needed with the Universal Type 2 Bulk Bag Unloader.

#### Typical products used in the water industry include:

- Activated Carbon
- Lime
- Hydrated Lime
- Aluminum Granules
- Soda Ash

### **Spiroflow Solution**

Spiroflow Systems has developed a full range of equipment of equipment specifically designed for water treatment applications.

#### Advantages:

- Minimum dust & waste
- Reduced manual handling
- Removes need for bulk silos
- Handled by volume or weight

In addition to the benefits of reduced labor, Spiroflow equipment also operates with greater reliability and minimum maintenance. Material costs may also be reduced as Spiroflow conveyors permit the use of coarser and less expensive grades of lime than required by axial type powder pumps.

Spiroflow Systems offers a complete system for accurately discharging and metering dry water treatment chemicals. Many of the products used for pH control, such as hydrated lime, activated carbon and soda ash are now delivered in one ton bulk bags. Spiroflow is recognized worldwide as a leading manufacturer of Bulk Bag dischargers, as well as flexible screw conveyors, which have been used in the water treatment industry for many years for metering and conveying from silos.

# How Can Spiroflow Help Your Business?

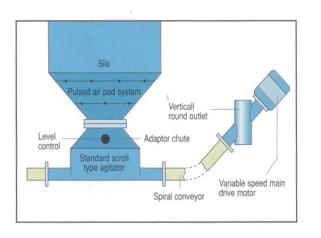
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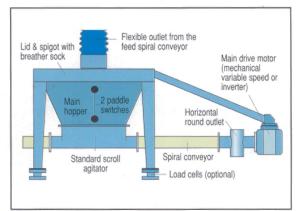
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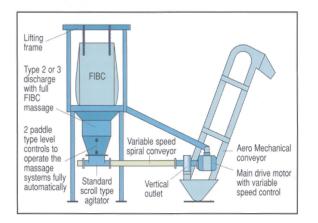
# Spirof Water Treatment

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## Discharging & Metering Dry Water Treatment Chemicals - Continued







### System 1

This is the most basic system and is used either as a direct volumetric feeder or to fill up other hoppers. It includes a standard spiral conveyor fitted with a scroll type agitator and an adapter chute to suit the silo outlet. The silo uses a pulsed air pad system. The two main rings operate separately for maximum fluidization.

Output rates are between 660lb/ 300kg and 6,600lb/ 3,000kg per hour.

## System 2

This system is used when the output requirement is very low or if the accuracy demands loss-in-weight control. The system is typically mounted as close as possible to the slurry tank or the feed main and fed from a spiral conveyor as in System 1.

If used as a volumetric feeder, the level controls in the hopper maintain a constant output. If load cells are fitted, the system can become fully automatic.

# System 3

This is similar to System 1 but uses a bulk bag (FIBC) instead of a silo. This system covers all the requirements for water treatment works:

- Volumetric feed or high accuracy loss in weight
- Fits into a small area with an aero mechanical conveyor
- For long distances a pneumatic conveyor system may be used for certain materials.
- A flexible screw metering feeder can be extended for short distances with direct delivery of product to process.

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