

# Bulk Material Handling & Processing Solutions for Lithium LiOH & Li<sub>2</sub>CO<sub>3</sub> Chemicals



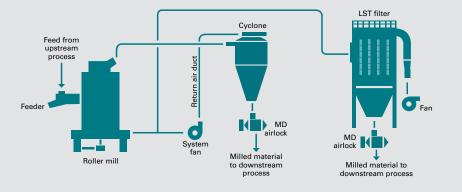
- » Pneumatic Conveying
- » Feeding
- » Dust Collection
- » Bulk Bag Unloading
- » Calcining
- » Pulverizing

With the growth of mobile devices, electric cars, and utility-grade energy storage increases the need for lithium-ion batteries. Whether your lithium originates in ore or a brine deposit, Schenck Process offers a wide range of bulk material handling and dust collection systems that allows us to provide equipment solutions through various stages of lithium processing.

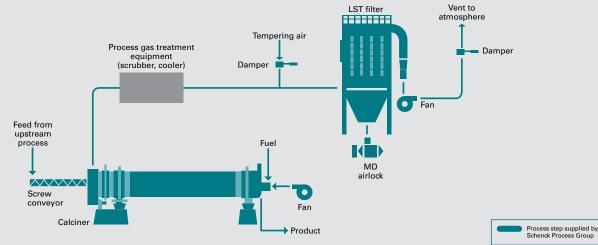
#### Lithium Ore Processing

The Schenck Process Raymond Mills and Bartlett-Snow calciners, rotary kilns, and coolers are designed to obtain the desired particle size and chemical composition. LST Filters remove dust and other harmful airborne materials.

# Typical Pulverizing System



# Typical Thermal Processing System



#### Pulverizing

- Designed to dry, pulverize and classify
- Provides efficient control of product size with minimal power
- Maximum flexibility and control over mill variables
- Custom designed for your processing application

#### Calcining / Kiln For high temperature processing

of granular products and powders

- Known for high online availability and operational integrity
- Extensive range of systems, components, and services
- Designed and manufactured with exacting standards

#### **Air Filtration**

Pulse jet filters for dust collection applications

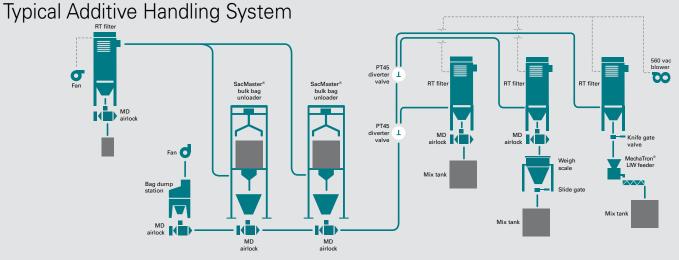
- High efficiency dust removal systems
- Bags are easily removed for
- routine maintenancePlenum can be designed as a
- Plenum can be designed as a walk-in so the filter media replacement occurs in an enclosure

#### **Lithium Additive Systems**

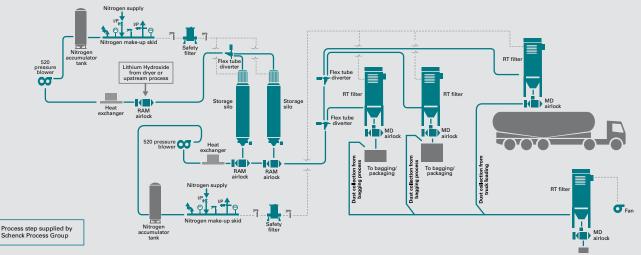
Bag dump stations or bulk bag unloaders are used together with pneumatic transfer systems that discharge the product into a loss-in-weight feeder, a weigh scale, or other process equipment.

#### Lithium Carbonate and Lithium Hydroxide Transfer Systems

Open loop or closed loop pneumatic conveying systems can be designed and supplied based on specific site requirements. Whether transferring battery grade lithium powder from a dryer to a storage silo or from a silo to packaging equipment or a bulk truck, Schenck Process can provide a complete transfer solution.



Lithium Hydroxide/Lithium Carbonate Storage & Transfer Systems





## **Pneumatic Conveying**

- Low pressure systems
- Dense and dilute phase, vacuum or pressure
- · Systems for abrasive or fragile materials
- · Easy to convey from a single source to multiple locations
- Convey over long distances

## **Bulk Bag Discharge System**

- Bulk bag frame for full bag emptying Agitation to eliminate material bridging and promote full bag emptying
- Two agitation and two pivoting paddles for full bag support
- Modular design for easy system customization and compatibility

#### Feeding

Wide range of models and feed rates

- Volumetric or gravimetric configurations
- · Easy disassembly for quick maintenance
- Internal agitation promotes material flow
- Feed rates up to 1,100 ft<sup>3</sup> per hour



Precise bulk material handling systems provide accurate material delivery while reducing overall cost.

# We put a charge into your battery production



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we make processes work