



INNOVATIVE SOLUTIONS FOR THE MODERN
POWER & GENERATION INDUSTRY

11 General Warren Blvd, Malvern PA 19355
Phone: 610.695.9700
Fax: 610.695.9724
www.deltaduconpowergroup.com



In today's power generation landscape, Delta Ducon's Power Group Division stands as a beacon of innovation and environmental responsibility. By combining our century-old expertise with cutting-edge technologies, we offer the power and utility industry the tools they need to thrive in a sustainable future.

Delta Ducon Power Group empowers its customers to fuel a cleaner future. Our cutting-edge solutions for fossil fuels, waste to energy and biomass, help you generate efficient, sustainable energy while minimizing environmental impact through advanced fuel transfer and feed, ash handling, beneficiation and emission-reducing technologies.

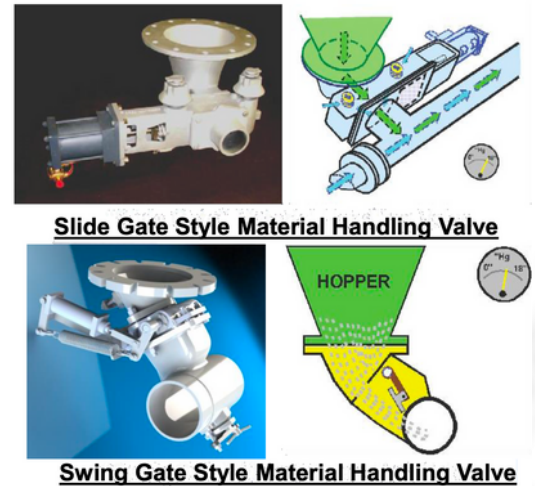
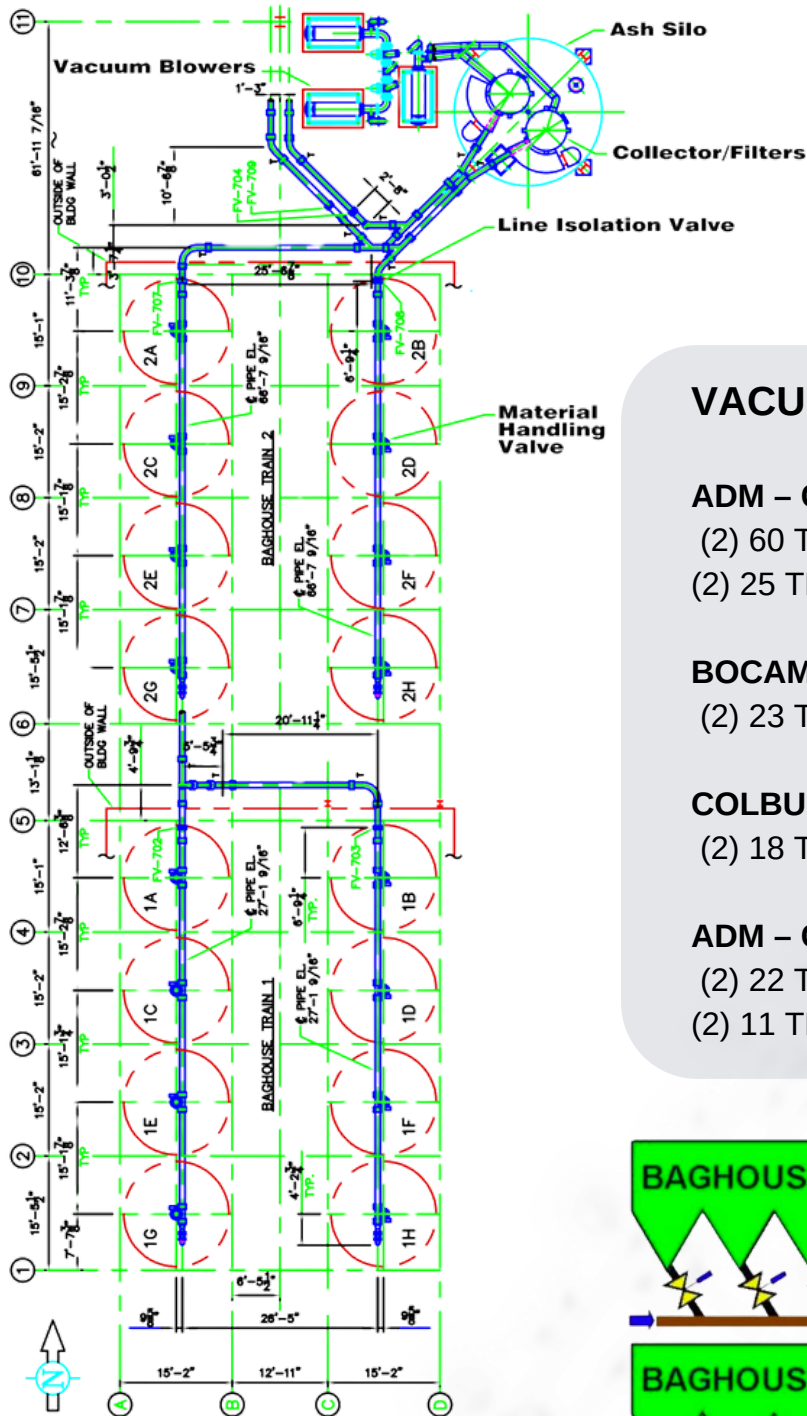
So, whether you're looking to upgrade your existing infrastructure, improve environmental compliance, or simply operate more efficiently, Delta Ducon's Power Group Division is your partner for progress.

With our unwavering commitment to clean power and environmental stewardship, we are paving the way for a brighter future for the planet.

Delta Ducon Power Group

- Pneumatic Ash Vacuum Systems
- Pneumatic Fuel Transfer & Feed Systems (Coal, Coke, Alternate Fuels)
- Bottom Ash Submerged Scraper Conveyors (SSC) & Remote Submerged Scraper Conveyors (RSSC) for wet to dry conversions.
- FGD & Environmental Compliance Systems (Hydrated Lime, Trona, Carbon, Sodium Bi-Carbonate)
- Ash Truck & Railcar Transfer and Load Out Systems
- Fluid Bed Sand Injection & Ash Re-Injection (Bed Make-up)
- Manufacture a Complete Line of Rotary Valves (Airlocks)
- Manufacture Abrasion Resistant Pipe and Fittings (Elbows) called PERMA/flo for the conveyance of abrasive dry bulk materials.

VACUUM SYSTEMS



VACUUM SYSTEMS:

ADM – CLINTON PLANT

- (2) 60 TPH FLY ASH SYSTEMS
- (2) 25 TPH BED ASH SYSTEMS

BOCAMINA – CHILI

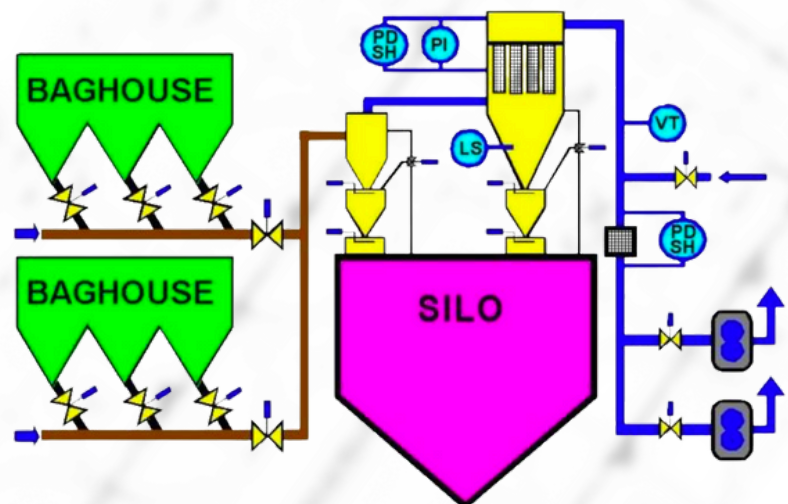
- (2) 23 TPH FLY ASH SYSTEMS

COLBUN – CHILI

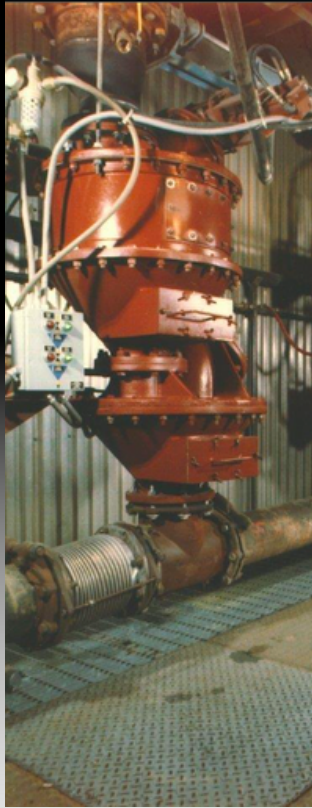
- (2) 18 TPH FLY ASH SYSTEMS

ADM – COLUMBUS

- (2) 22 TPH FLY ASH SYSTEMS
- (2) 11 TPH FLY ASH SYSTEMS

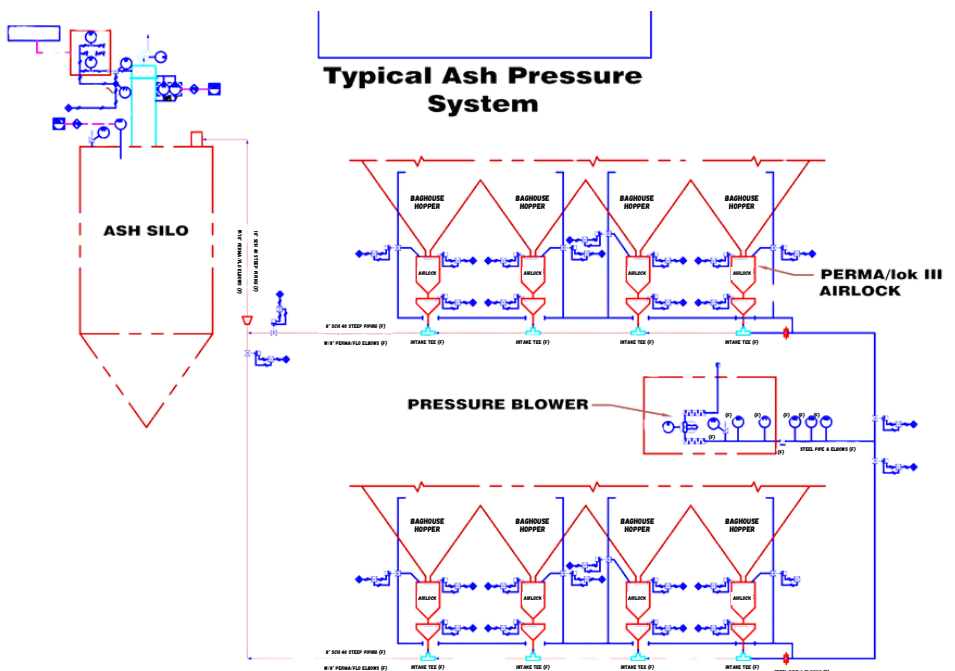


PRESSURE SYSTEMS

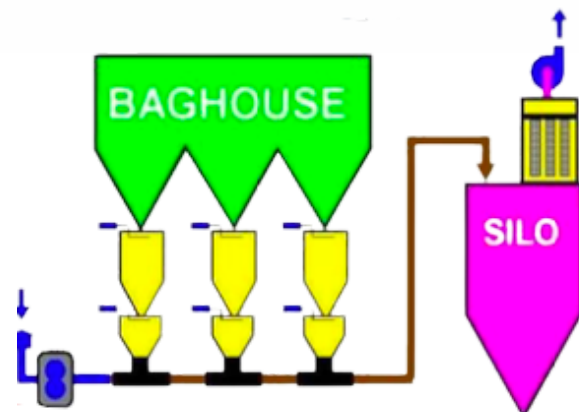


PRESSURE SYSTEMS:

HAVANA 6 – (1) 37 TPH PRESSURE SYSTEMS (3,600 FT)
HAVANA 6 – (2) 110 TPH PRESSURE SYSTEMS
BRAYTON POINT – (2) 40 TPH PRESSURE SYSTEMS



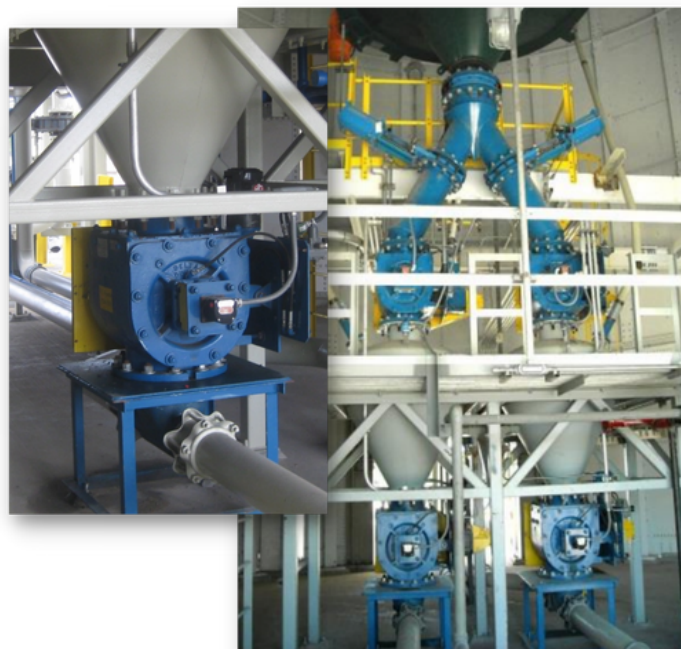
TYPICAL PRESSURE SYSTEM FLOW DIAGRAM



Rotary Valve Based Systems



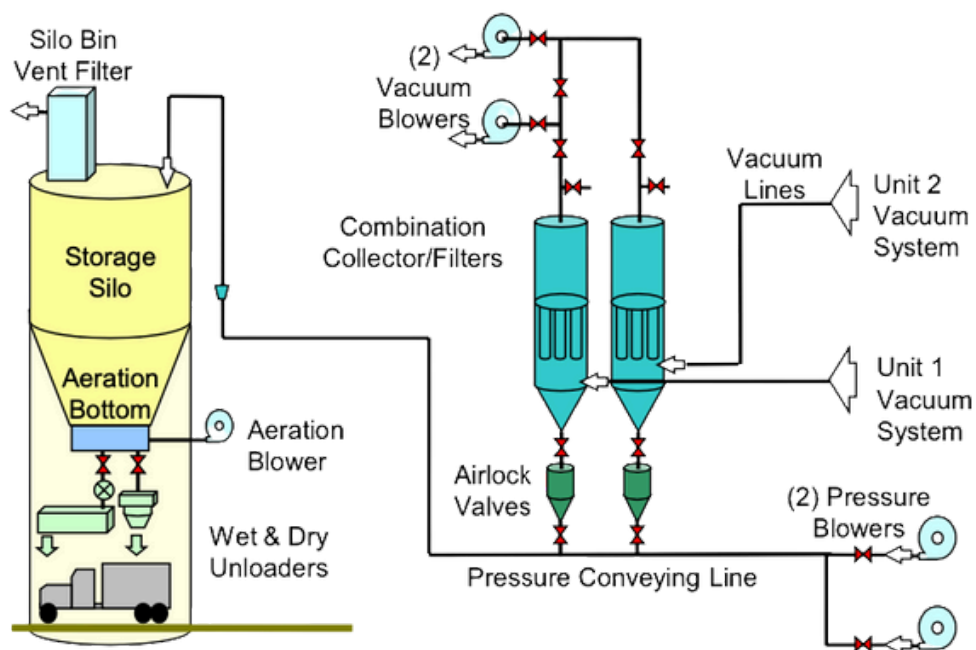
Rotary Valve Feeding a Vacuum Pneumatic Conveying Line



Rotary Valves Feeding Pressure Pneumatic Conveying Lines

Vacuum / Pressure Systems

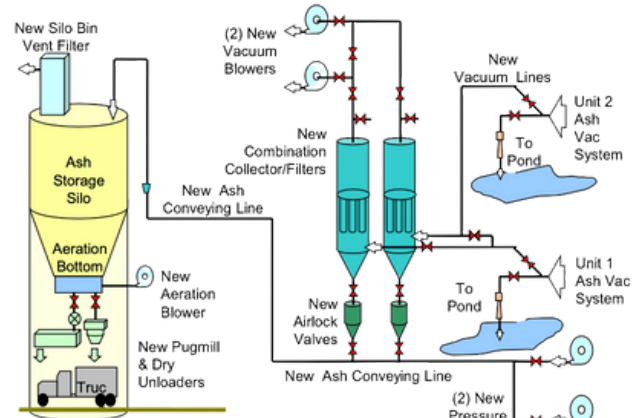
DYNEGY HENNEPIN – (2) 15 TPH SYSTEMS
DYNEGY HAVANA 6 – 37 TPH (3,600 FT) SYSTEM
DYNEGY VERMILION – (2) 15 TPH SYSTEMS
WESTERN KENTUCKY ENERGY – (2) 15 TPH SYSTEMS



Wet To Dry Fly Ash Conversions

Scope:

Divert ash flow from existing ponds to a new dry ash storage silo via vacuum fly ash systems feeding a pressure transfer system.



ASH VACUUM / PRESSURE SYSTEMS:

DYNEGY HENNEPIN – (2) 15 TPH SYSTEMS
DYNEGY HAVANA 6 – 37 TPH (3,600 FT) SYSTEM
DYNEGY VERMILION – (2) 15 TPH SYSTEMS
WESTERN KENTUCKY ENERGY – (2) 15 SYSTEMS

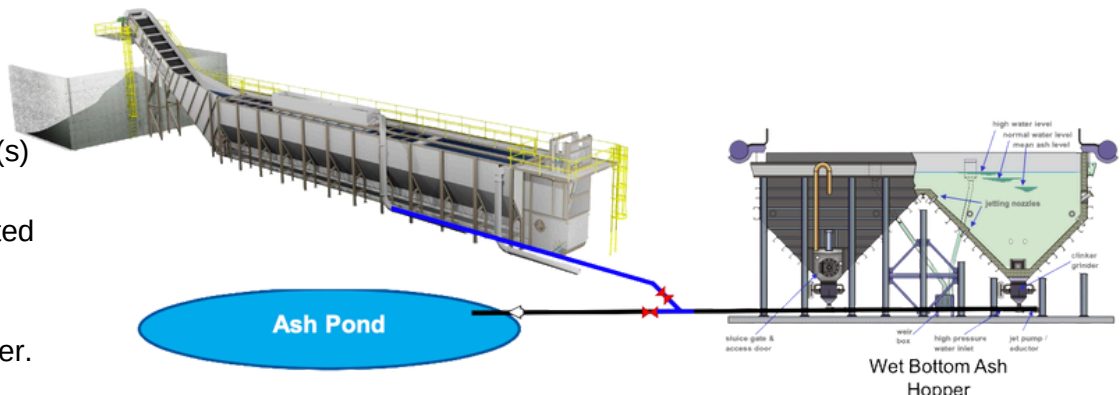
Submerged Scraper Conveyor (SSC)

Submerged Scraper Conveyor (SSC) bottom ash systems, have been developed replace old wet bottom ash slurry systems.

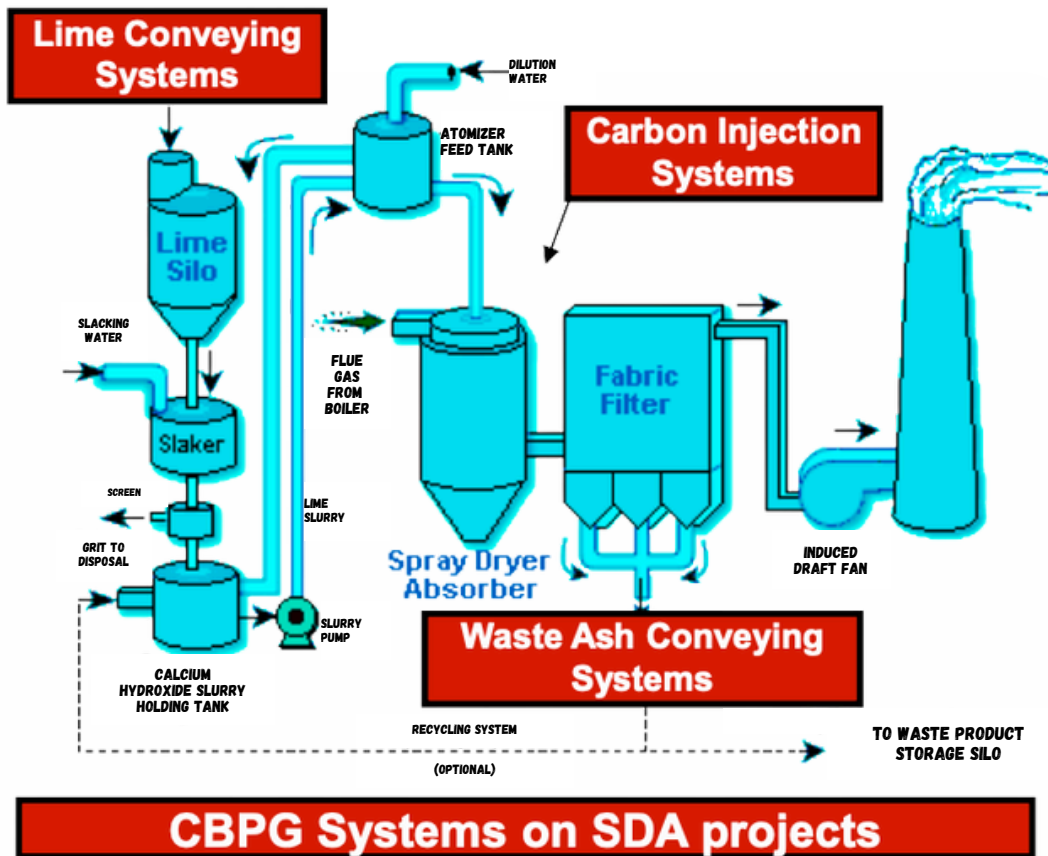


Remote Submerged Scraper Conveyor (RSSC)

With the Remote Submerged Scraper Conveyor (RSSC), existing Bottom Ash Slurry line(s) can be diverted away from ash storage ponds. With our Patented RSSC technology, bottom ash slurry is dewatered and discharged into a storage bunker.



SDA & Waste Ash Handling Systems



SDA WASTE ASH SYSTEMS:

HAVANA 6 – (2) 110 TPH PRESSURE SYSTEMS

BIG RIVERS – (1) 15 TPH DENSE PHASE SYSTEM

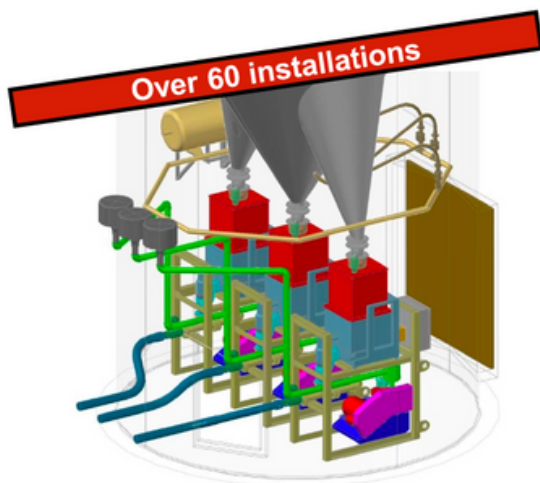
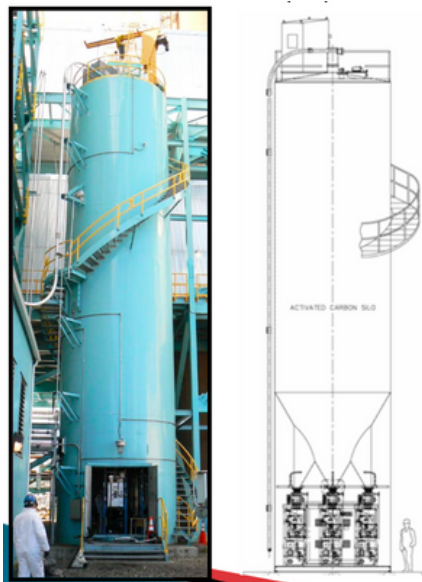
US STEEL, GARY, IN – (2) 12.25 VACUUM SYSTEMS



SDA Waste Systems
Photo - Brayton Point

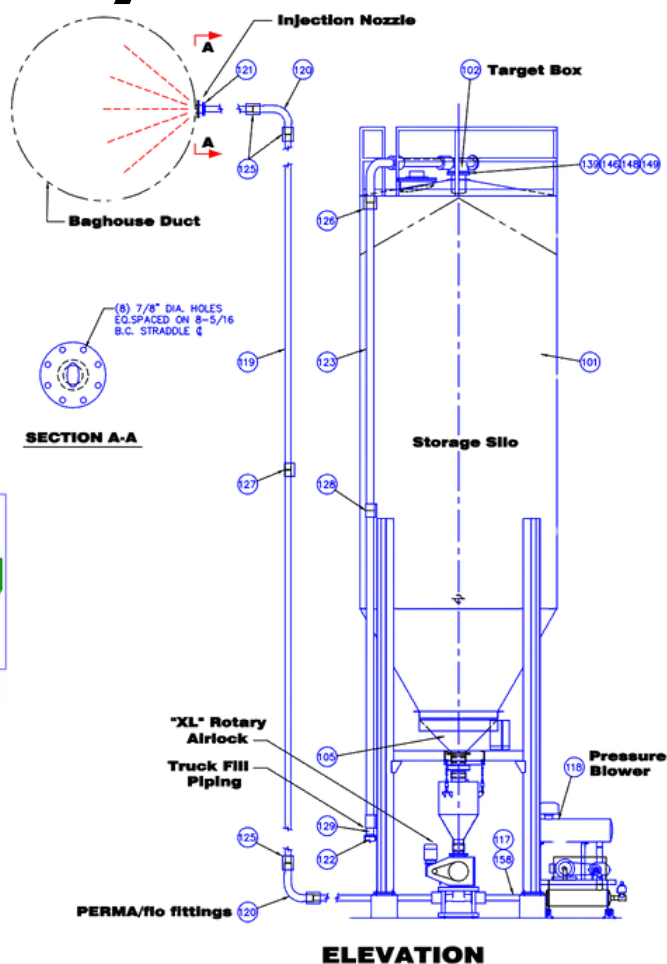
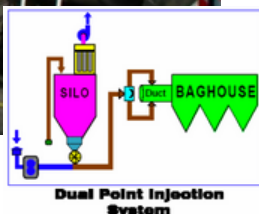
Activated Carbon Injection

Powered activated carbon (PAC) injection systems for mercury control



Feed Equipment is shop installed in the silo, then delivered in one piece. All components shop wired to reduce field labor.

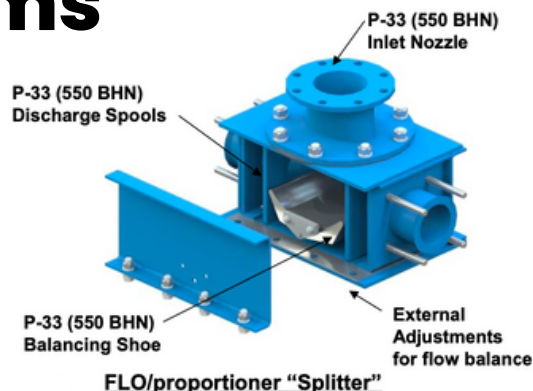
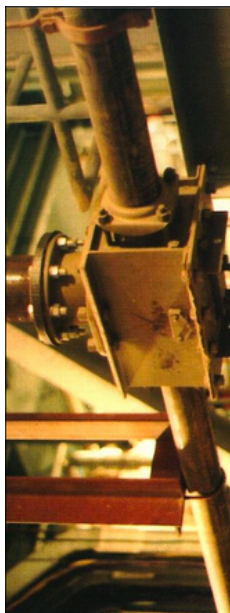
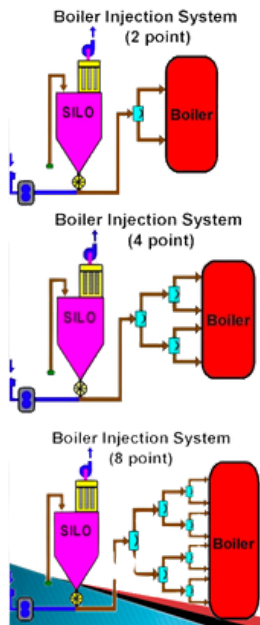
Hydrated Lime / Trona Systems



Hydrated Lime / Trona:

PSNH – (2) Trona Injection Systems
 Duke / Progress Energy - (6) Hydrated Lime DSI
 Constellation Energy – (2) DSI systems
 Over 60 DSI Installations

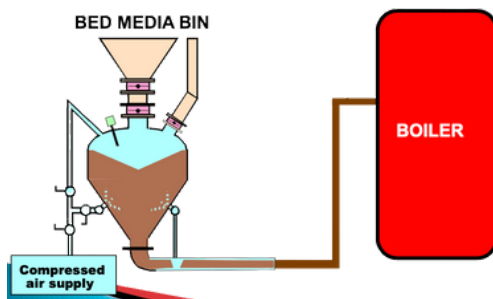
Boiler Injection Systems



FEATURES:

- For multi point sorbent injection into fluid bed boilers.
- Designed to provide selective dispersement of sorbents, for maximum SO₂ reduction.
- Conveying stream is split from one to two, four to eight, continuous and uniform, injection points with our propiorior FLO/proportioner.

Bed Media (Sand) Injection



FEATURES:

- For bed media fill and make up into fluid bed boilers.
- Designed to provide selective dispersement of bed media at various boiler needs.
- Conveying stream can be split from one to two, four to eight injection points.



Ash Re-Injection

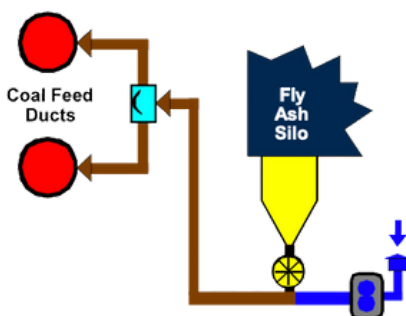
FEATURES:

Ash re-injection systems can be used to inject high carbon ash for re-burn

WE ENERGY SCOPE:

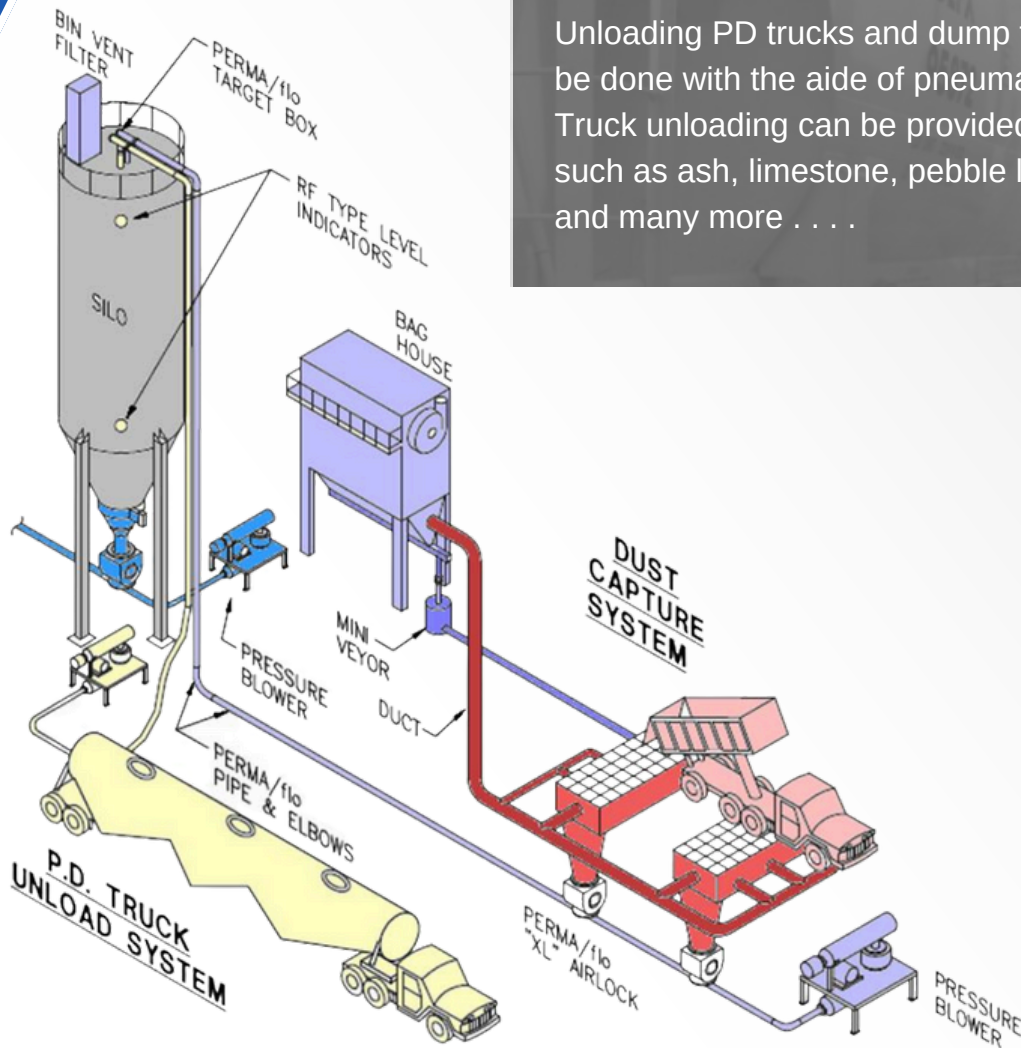
TEN fly ash re-injection systems each conveying fly ash from a silo cone discharge to **TWO** injection points in the pulverized coal supply feed lines

Flat bottom silo aeration system
Bulk truck unloading system
PLC touch screen control panel



Truck & Rail Unloading

Unloading PD trucks and dump trucks to Storage Silos can be done with the aid of pneumatic conveying systems. Truck unloading can be provided for many types of material such as ash, limestone, pebble lime, hydrated lime, trona and many more



Vacuum/Pressure Unloading



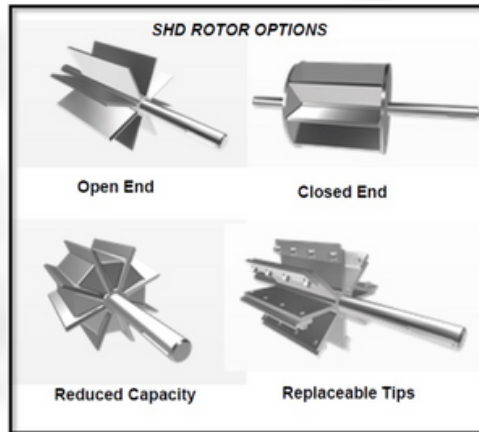
Long Distance Unloading, Conveying & Storage

Rotary Valve Types



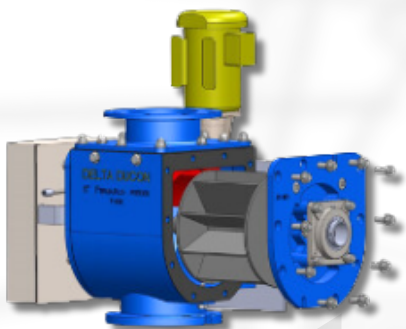
SHD

General Purpose Valve



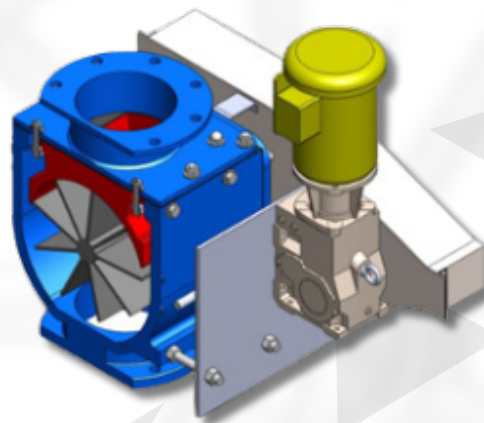
SHD Rotary Valve Features:

- Cast Iron or Stainless Steel Construction
- Square Flange Sizes 6" through 26"
- Round Flange Sizes 4" through 16"
- Open Or Closed End Rotors
- Fixed or Adjustable Tips
- Outboard Mounted
- 8-10-12 Vane Config Bearings
- Shaft Air Purge Ports
- High Temperature Models to 700°F
- Rotor and Interior Coating Design Options to Suit a Multitude of Applications
- Pressure Differential Up-To 15 PSIG
- NFPA Guideline Construction Available
- Available in 6" to 26"



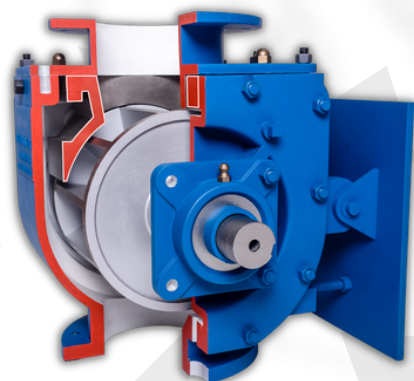
HD

For Moderately Abrasive Applications



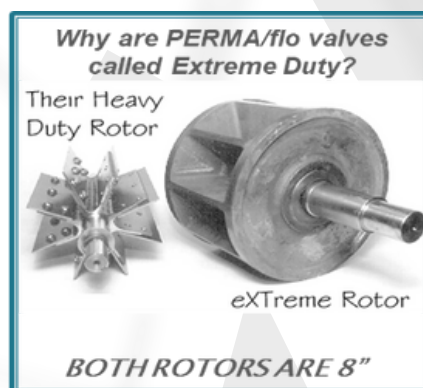
HD Rotary Valve Features:

- Heavy Iron Alloy Cast Closed End Rotor & Inlet Wear Shoe
- Field Adjustable Rotor To Shoe Clearance
- Heavy Cast Iron Housing
- Outboard Mounted Bearings
- Heavy Duty Shaft (No Shear Pins Required)
- Shaft Air Purge Ports
- Four Inspection Ports
- Temperature to 380 F
- Available in 8" & 10" Only



Extreme XT/XL

For Severely Abrasive Applications

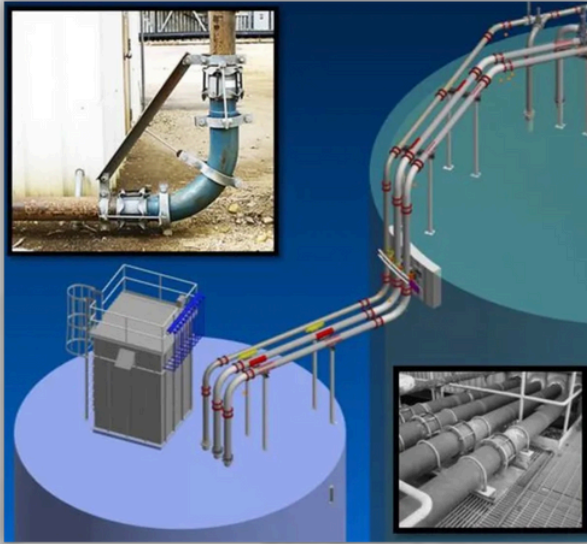


Extreme Rotary Valve Features:

- P-33 Alloy (550+ BHN) Cast Closed End Rotor & Inlet Wear Shoe
- Field Adjustable & Replaceable
- Heavy Cast Iron Housing
- Outboard Mounted Bearings
- Extreme Duty Shaft (No Shear Pins Required)
- Shaft Air Purge Ports
- Four Inspection Ports
- Multiple Shaft Seal Options
- Temperatures to 800 F Continuous (1000 Spikes)
- Available in 6" to 24"

PERMA/flo Pipe & Fittings

Delta Ducon PERMA/flo pipe & fittings are designed to withstand the wearing action of abrasive materials when transported either hydraulically or pneumatically.

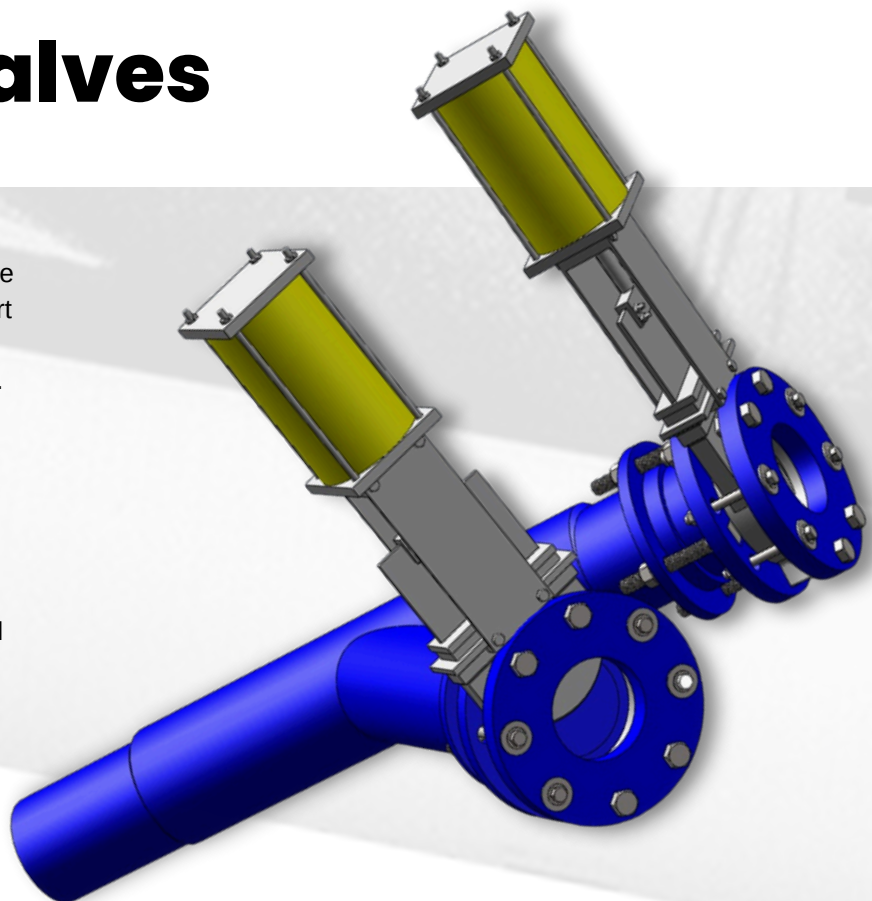


PERMA/flo KG Valves

The PERMA/flo KG Valves are used to divert abrasive materials while maintaining a seal on the closed divert leg. The valve body is constructed of cast 400+ BHN P-33 Alloy or PERMA/flo II Induction Hardened Steel.

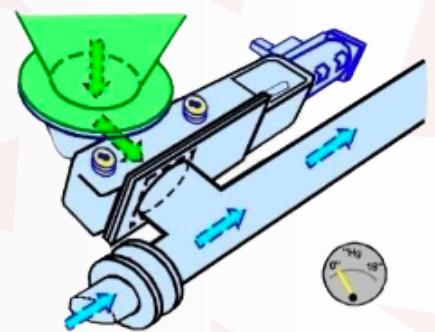
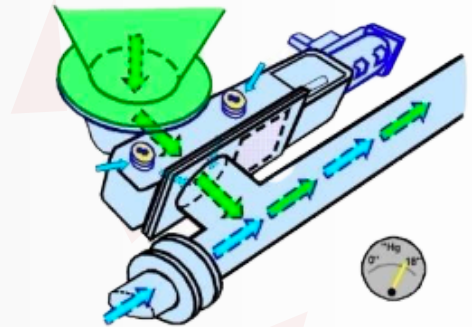
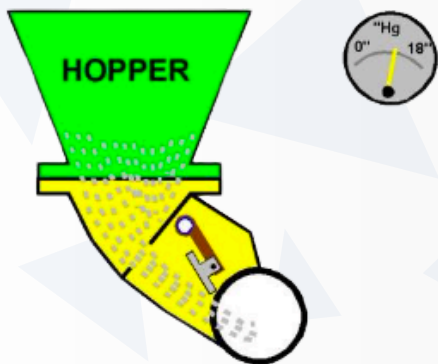
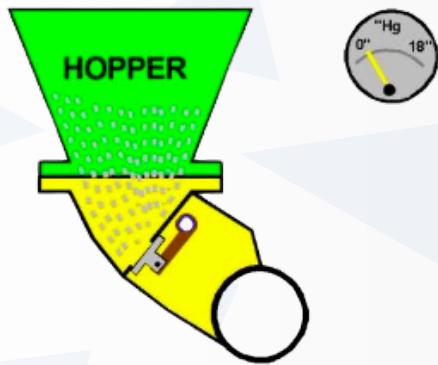
When material is required to be diverted, a signal is sent to the solenoid (controls by others) to close the desired leg. The gate will be pushed close (utilizing 80-100 PSIG clean/dry plant air) creating a solid barrier which material cannot pass through. At this point material will build up in one portion of the lateral allowing the material to deflect off itself and into the open portion of the lateral.

The PERMA/flo KG Diverter is made up of three modular parts. A 45 Degree lateral, Two pneumatic actuated KG valves with stainless steel bodies and gate and either Coupled or flanged ends.



Ash Intake Valves

Ash intake valves act as metering valves for the flow of ash into a vacuum conveying system



Swing Disc Type

TYPE "HC" VALVE



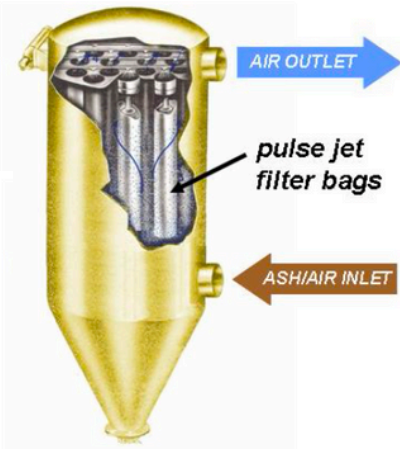
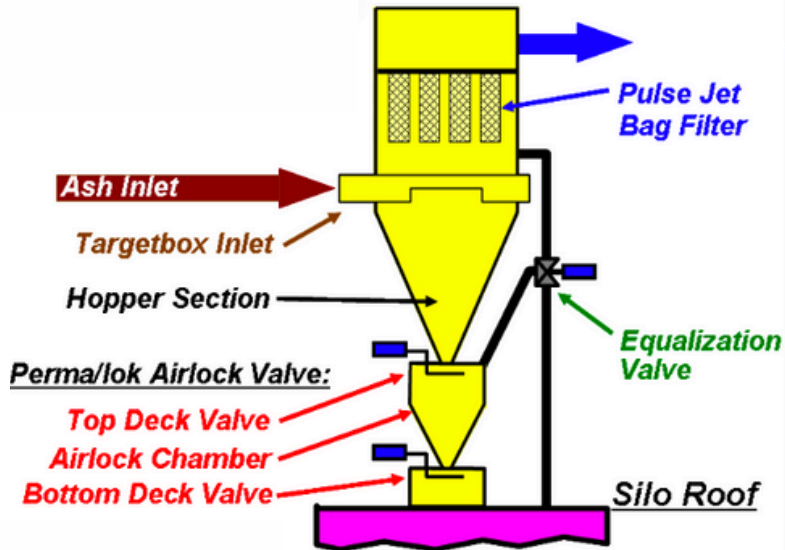
Slide Gate Type

TYPE "E" VALVE

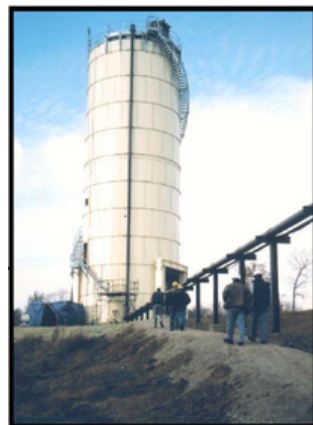
Ash Collector Filter Units

The Collector/Filter separates ash from the conveying air stream for discharge into the storage silo.

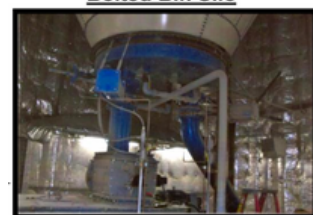
Final dust collection is via a pulse jet fabric filter.



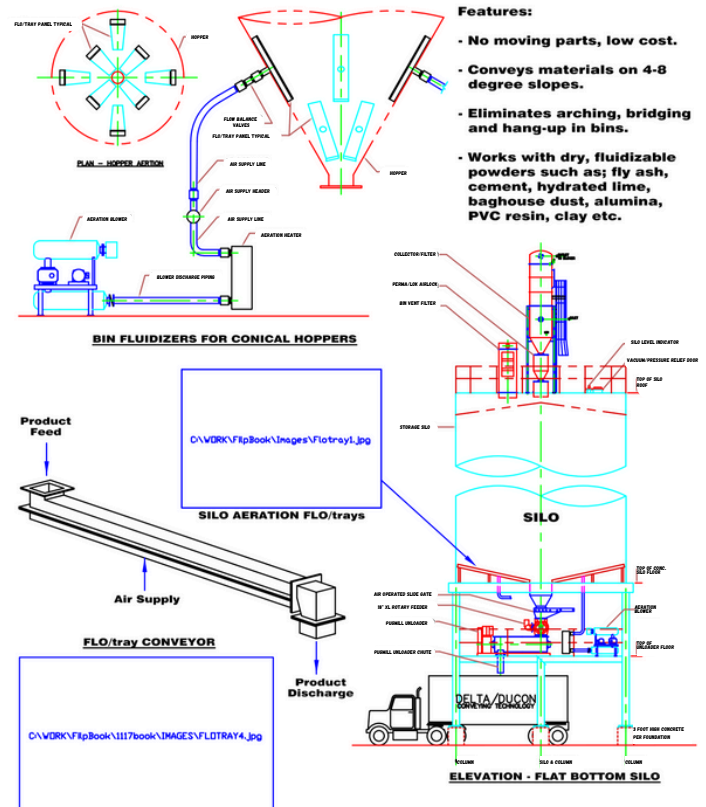
Silos & FLO/tray Aeration Systems



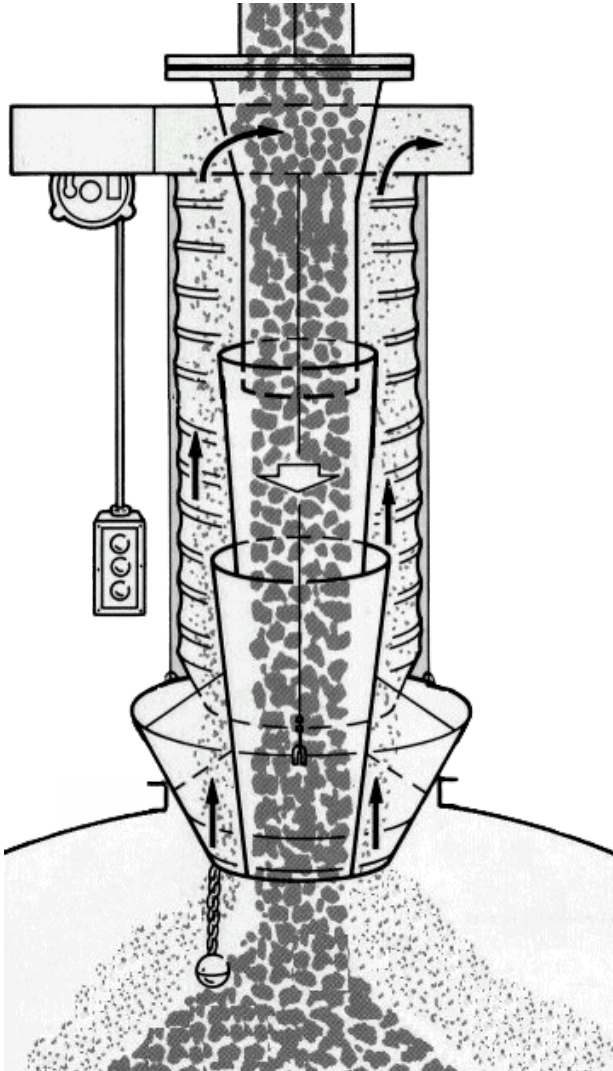
Bolted Bin Silo



Bin Bottom Aerator



Wet & Dry Silo Unloading Equipment



Paddle/Pin Mixer (PUGMILL)



Dry Unloading Spout



INNOVATIVE SOLUTIONS FOR THE MODERN
POWER & GENERATION INDUSTRY

11 General Warren Blvd, Malvern PA 19355

Phone: 610.695.9700

Fax: 610.695.9724

www.deltaduconpowergroup.com

