Innovations in Precast

Productivity and Safety Advancements with Industrial Vacuum Systems

“It’s Not Just About Silica…”
✓ Productivity
✓ Material Handling
✓ Ergonomics
✓ Flexibility
✓ Improved Working Conditions
✓ Profitability
✓ Safety
✓ Efficiency
✓ Replacing manual with mechanized
✓ Dust & Quality Control
✓ Reduced Maintenance
Types of Industrial Vacuum Cleaning Systems

Portable: Compressed air powered and 115V/1ph

Portable: Continuous-duty

Transportable

Vacuum Loaders

Central Vacs
Inside Blast Building, pathways cleared in one pass with wheeled floor tool
Material Handling:
Central vacs take debris away to single collection point. Out-of-sight, out-of-mind!
Productivity & Ergonomics:
Daily Spillage: Batch Plants, Conveyors, Feeders

Save hours of drudgery and avoid back injuries from shoveling
Piping drop and hose connection in receiving pit for aggregate and wet/dry sand (no shoveling).

Horizontal pipe (left) cleans spills from feeders and conveyors under batch plant silos, as well as silo roofs.
VAC-U-MAX SNAP-CAM inlet valve with spring-loaded cover in form demolding department. Pipe network is sch. 40 steel.
30HP Central Vacuum System
2yd3 Collection Capacity
650 ACFM @ 14” Hg
HEPA Filtration
Outdoor location
Sch. 40 Piping indoors
Material Handling:
30HP System Vacuum Loading a Vacuum-Tight 20yd³ Roll-off Box for dust-free disposal
30HP System
Vacuum Loading
a 20yd³ Roll-off Box
Reduce Maintenance:
Transportable vacuum systems can reach multiple levels of the Batch Tower with a tubing run to clean walkways and fugitive dust and keep dust from migrating into control rooms.
Productivity & Ergonomics:
Clean up Conveyor Belt Spillage @ 10,000lb/hr

Flexibility:
Portable Vacuum System can be moved between buildings
Better working conditions…increase worker retention

Wall Cleaning from ground level with 15ft extension wands improves light reflectivity and working conditions.
Profitability:
Eliminate vacuum trucks: DIY!
Safety:
Eliminate compressed air blowing for housekeeping
It’s not just dust…

Productivity:
Blowing is a “false clean”…
Pushing dust somewhere else, for someone else to clean it up

Vehicle traffic will make it airborne and respirable
Compressed air blowing: “Dust Relocation”

To:
Exhaust fans
Computer coiling fan inlets
Workers’ clothing
Outdoor roadways
Overhead lighting and heating fixtures
Workers’ clothing

Air Filters of:
Mixer Trucks, Forklifts, Straddle Carriers
Air Compressors, Hydraulic Power Units

Instrumentation & Sensors
Vacuuming Dry-Cast Concrete in Hollowcore Production
Dust and Quality Control:
Sanding resin beds

Apply the same sanding pads to a concrete polisher and provide source-capture vacuum

Cost Control:
Source-capture vacuum systems extend abrasive life and shorten the task
Source-Capture of Dust

Random Orbital Sanders
Right-Angle Grinders
Hammer Drills
Dry Coring
Concrete Polishing (dry)

Reduced abrasive usage
Faster Task Completion
Higher-Quality Finish
Less Clean-Up Time
Clean disposal of debris
No Shop-Vac Burnout!
Vacuums operate on compressed air!
Industrial-Duty Filtration:
Electric Drum-Top Vacuums with High-Efficiency Filtration and manual filter shaker.
Operates on 115V / ph power