

# High-Pressure Water Technology for Asphalt Silo Cleaning

Asphalt silo buildup is an operational and safety challenge across the industry. Today's discussion focuses on how high-pressure water technology provides a safer, more efficient alternative to traditional silo cleaning methods.



# Who We Are: Adler Industrial Services

Adler Industrial Services has over four decades of experience delivering industrial cleaning solutions in demanding environments. Our expertise spans vacuum services, hydrovac excavation, sewer cleaning and high-pressure water applications across industrial facilities.

- Family Owned and Operated
- 40+ years in industrial cleaning
- Industrial Vacuum, Hydrovac, High Pressure Water Blasting, Roof Vacuum Services
- 24/7 emergency response
- Debris Removal Contractor for 9/11
- Committed to excellence

▪ **We Do What We Say**



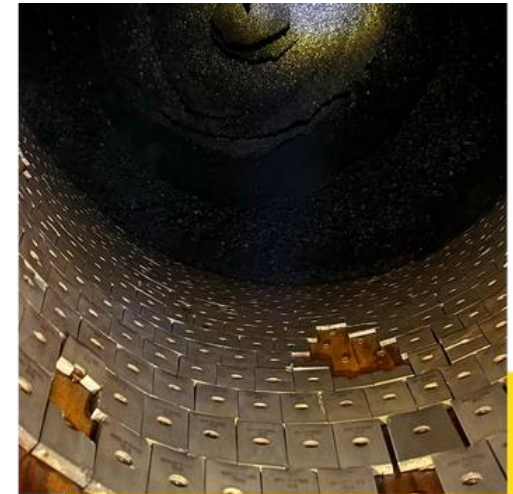
# The Challenge: Asphalt Silo Buildup

Asphalt storage silos are prone to hardened material accumulation that restricts flow, disrupts discharge cones, and impacts production efficiency. Over time, this buildup creates operational slowdowns and safety risks.

- Hardened asphalt residue
- Cone blockages
- Wall buildup
- Restricted discharge flow
- Manual entry risks



Before



After

# Traditional Cleaning Methods

Historically, silo cleaning required manual labor and confined space entry. While effective in certain cases, these approaches introduce safety hazards, labor intensity, and extended downtime.

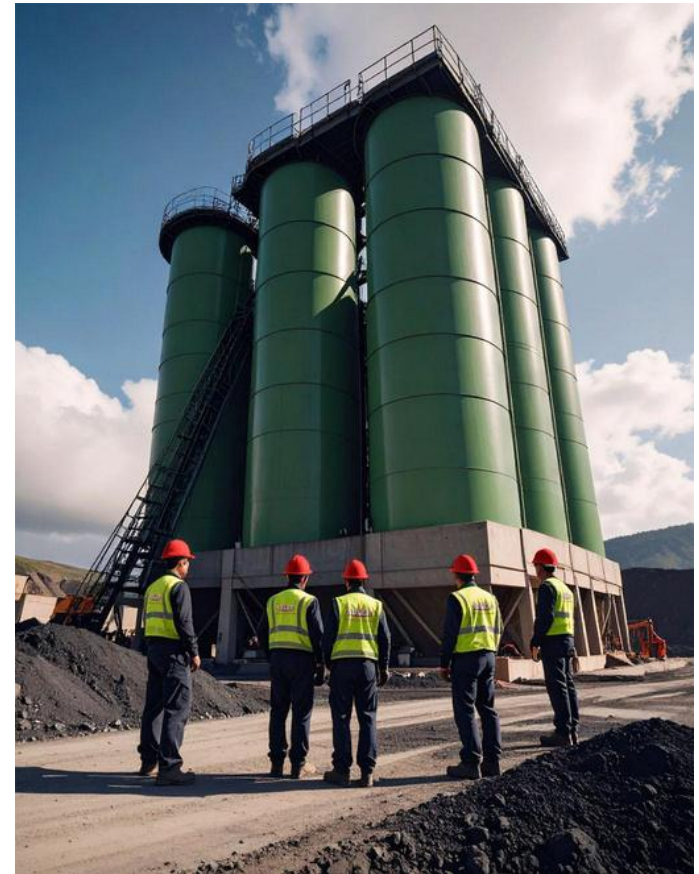
- Manual chipping
- Mechanical knocking
- Confined space entry
- Extended shutdowns
- High labor exposure



# The Need for a Safer, More Efficient Approach

Increasing safety standards and production demands have driven the need for a cleaning method that reduces risk and minimizes downtime without compromising effectiveness.

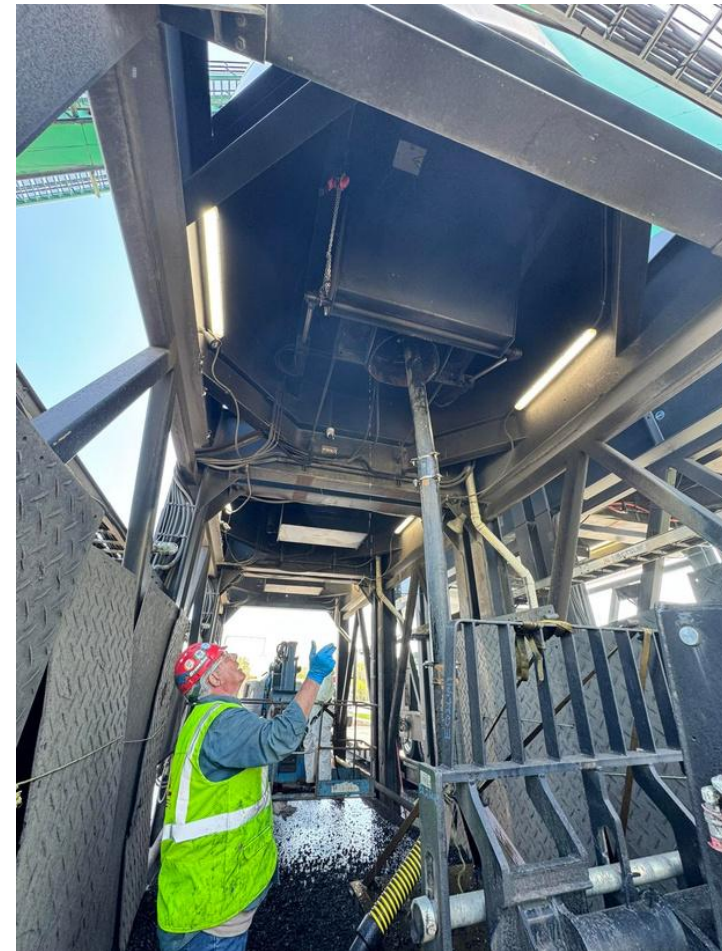
- Labor cost increases
- Downtime sensitivity
- Aging infrastructure
- Risk mitigation focus



# Non-Entry Cleaning Method

The process eliminates confined space entry, significantly reducing worker exposure and safety risk.

- No confined space entry
- Eliminates rescue standby
- Faster mobilization
- Reduced labor exposure



# High-Pressure Water Technology

High-pressure water blasting breaks down hardened buildup using calibrated pressure without damaging silo structure.

- 5,000–40,000 PSI capability
- Variable flow rates
- Controlled fragmentation
- Non-invasive cleaning



# Nozzle Configuration Matters

Nozzle design determines cleaning precision and coverage while protecting silo integrity.

- Rotating nozzles
- Directional nozzles
- Adjustable spray patterns
- Pressure calibration



# Minimal Operational Disruption

Cleaning is isolated to a target silo, allowing adjacent operations to remain active.

- Targeted silo cleaning
- Adjacent silos remain operational
- Reduced plant downtime
- Efficient crew footprint



# Safety and Compliance

Safety is embedded in every mobilization through documented procedures.

- Full PPE compliance
- Safety documentation
- Site-specific protocols
- Pressure-rated hoses and fittings



# Safety and Compliance

Safety is embedded in every mobilization through documented procedures and OSHA-certified crews.

- Full PPE compliance
- Safety documentation
- Site-specific protocols
- Falling chunks of hardened asphalt avoidance
- Sudden release of bridged material avoidance



# Environmental Responsibility

The water-based process reduces chemical reliance and supports responsible material handling.

- Water-based cleaning
- Reduced chemical use
- Controlled debris removal
- Responsible disposal documentation



# Operational Performance Benefits

Complete residue removal restores discharge flow and protects long-term equipment performance.

- Full residue removal
- Restored cone discharge
- Improved material flow
- Extended equipment lifespan



## Downtime and Efficiency Gains

Reduced labor exposure and faster cleaning translate directly into shorter outages and improved production reliability.

- Shorter outages
- Faster restart
- Lower labor requirements
- Improved production reliability



# Real-World Outcomes

Field applications demonstrate safe execution and restored silo functionality.

- Clogged cone remediation
- Restored internal flow
- Safe, non-entry execution
- Reduced disruption



# Preventive Maintenance Strategy

Scheduled cleaning reduces emergency shutdowns and enhances operational predictability.

- Scheduled cleaning cycles
- Reduced emergency events
- Production stability
- Asset protection



## Key Takeaways

High-pressure water technology improves safety, reduces downtime, protects equipment, and supports efficient plant operations.

- Eliminates confined space exposure
- Reduces downtime
- Protects silo integrity
- Enhances operational efficiency
- Supports preventive maintenance



# Thank you!

