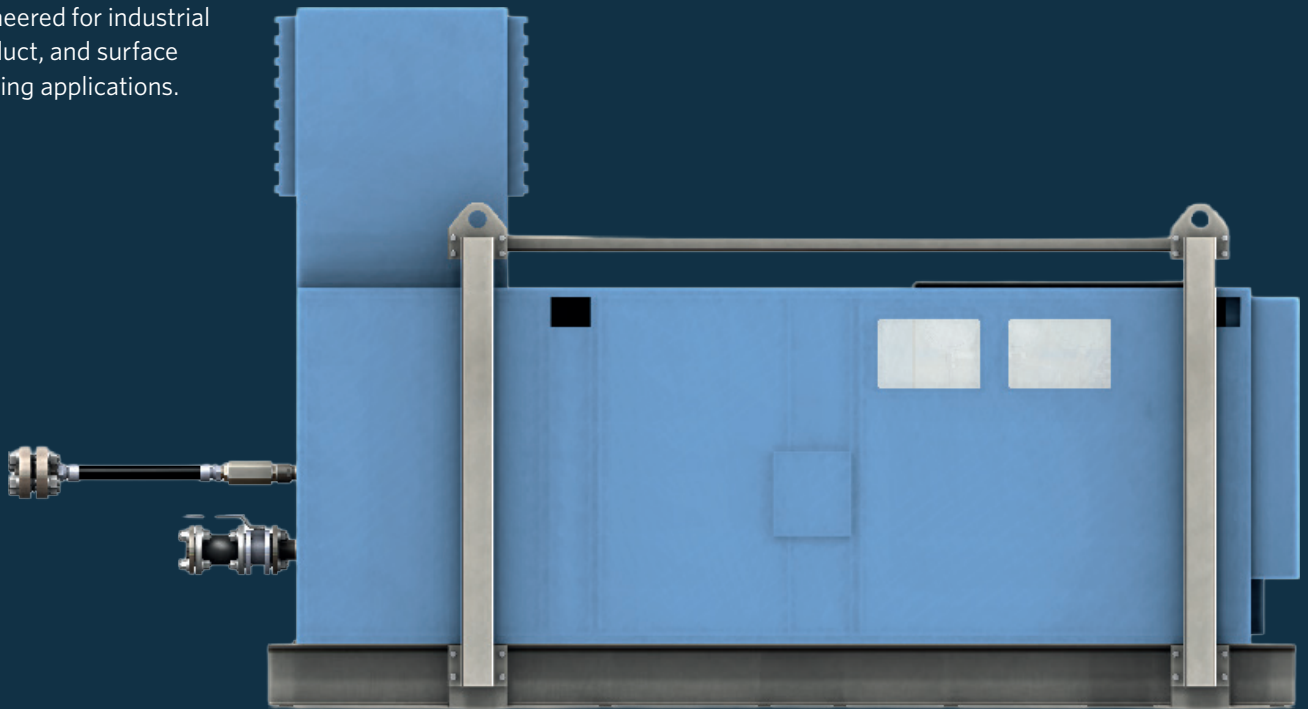


Armstrong High-Pressure Wash System Powered by Armstrong Envelope Intelligence

Engineered for industrial fan, duct, and surface cleaning applications.



Key Benefits

01 Efficiency

20-30% Energy Savings

Variable speed control adjusts pressure and flow inline with cleaning need.

Soft start/stop avoids power surges and water waste.

Auto-stop during idle cuts unnecessary runtime.

02 Sustainability

20-30% Reduction in CO₂ Emissions

Less energy used = smaller carbon footprint.

Optimized wash cycles reduce water use.

Extended equipment life means fewer replacements, less landfill.

03 Reliability

20-40% Longer Component Life

Reduced mechanical stress on crankshaft, crosshead, seals.

Lower cavitation and pressure spikes.

Predictive maintenance based on runtime and load history.

04 Intelligence

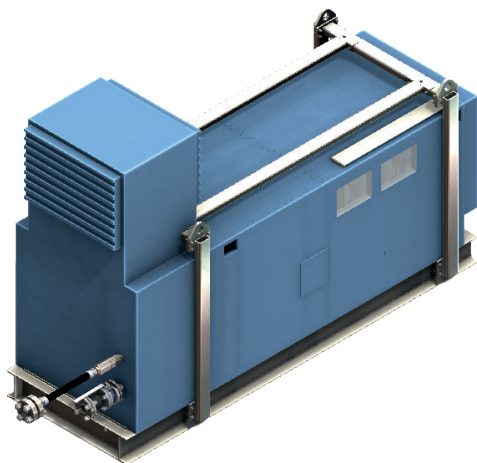
10-15% Operational Efficiency Gain

Auto-adapts to different wash zones and duty cycles.

Real-time pressure/flow control ensures optimal cleaning.

Integrated alarms and diagnostics for smarter decision-making.

Typical Applications



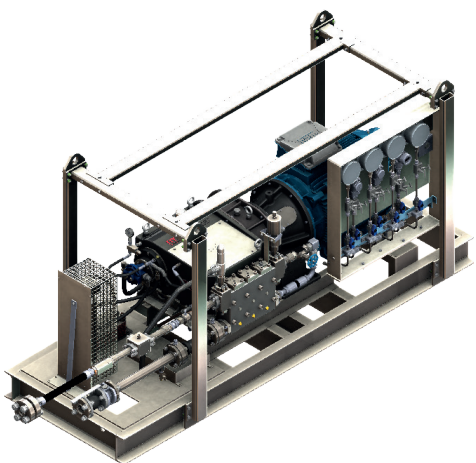
01 Low Flow Variant*

- 01 ID/FD/PA Fan Cleaning
- 02 Duct Cleaning
- 03 Air Preheater Cleaning
- 04 ESP Hopper Wall Washing
- 05 Heat Exchanger Fin Cleaning
- 06 Cooling Coil Cleaning
- 07 Boiler External Soot Cleaning
- 08 Solar Panel Washing
- 09 Dust Collector Fan Cleaning
- 10 Paint Booth Exhaust Cleaning
- 11 Dryer Fan Washing



*All applications use reciprocating plunger pumps operating at 300-1000 bar, flow rates between 10-70 LPM.

Feature	Description
Pump Type	Triplex / Quintuplex Plunger
Flow Range	10 to 70 LPM
Pressure Range	300 to 1000+ bar
Drive	Electric or Diesel
Mounting	Skid or Trolley-based
Controls	Manual or Smart Control Panel
Materials	SS316, Alloy steel, Ceramic plungers
Nozzle Types	Fixed, rotary, fan-spray with custom angles



02 High Flow Variant

- 01 Large Ductwork Cleaning (e.g., exhaust gas ducts >1.5m dia)
- 02 ESP (Electrostatic Precipitator) Wash-Down
- 03 Air Preheater Bank Wash
- 04 Rotary Kiln ID Fan Cleaning
- 05 Boiler Casing / Outer Shell Cleaning
- 06 Multi-Zone Wash Systems (multi-nozzle)
- 07 Heat Recovery Steam Generator (HRSG) Cleaning
- 08 Large Cooling Coil / AHU Wash
- 09 Solar Farm Centralized Wash System
- 10 Conveyor Belt Wash (Plant Utility Areas)
- 11 Truck-Mounted Industrial Wash Units
- 12 Tanker/Vehicle External Cleaning (Industrial Fleet)

Feature	Description
Pump Type	Quintuplex Plunger or Dual Triplex System
Flow Range	70 to 120 LPM
Pressure Range	300 to 1000+ bar
Drive	30-60 HP Electric or Diesel
Mounting	Skid-mounted or Vehicle-mounted
Controls	PLC/Manual with optional flow-split header

Key Drivers for High Flow

- Coverage: Wider spray pattern or parallel nozzles
- Speed: Reduced downtime between shifts or during maintenance
- Reach: Boom or telescopic arms covering >3-5 meters
- Redundancy: Multi-gun operation (e.g., 2-3 operators cleaning simultaneously)