

Commercial Property Hardscape Power Washing Procedure

1.0 Maintenance Objective & Frequency

The objective of this procedure is to safely and effectively clean commercial hardscape surfaces (concrete, brick, stone, pavers) using a pressure washer to remove accumulated dirt, organic growth (moss, algae, mold), oil stains, and general weathering. Proper execution prevents surface etching, joint erosion, and water intrusion while restoring aesthetic appearance and slip resistance. Frequency: Quarterly for high-traffic entrances and walkways; semi-annually for parking lots and loading docks; annually for perimeter walls and retaining structures.

2.0 Lockout/Tagout (LOTO) & Safety

- **Electrical Isolation:** Disconnect the pressure washer from the power source (unplug or switch off breaker) before performing any maintenance or nozzle changes.
- **Engine Isolation:** For gas-powered units, ensure the engine is off, cool, and the spark plug wire is disconnected before servicing.
- **Hydraulic/Pressure Isolation:** Trigger the spray gun to relieve residual pressure in the hose and wand after shutting off the unit.
- **PPE:** Wear safety glasses or face shield, waterproof gloves, steel-toed rubber boots, hearing protection (if using gas unit), and high-visibility vest. Use slip-resistant footwear on wet surfaces.
- **Site Safety:** Post wet floor signs, barricade the work area with cones or caution tape, and ensure no bystanders are within 20 feet of the spray path.
- **Chemical Safety:** If using detergents or degreasers, review SDS, wear appropriate chemical-resistant gloves and goggles, and ensure adequate ventilation.

3.0 Required Tools, Parts & Lubricants

- Commercial-grade pressure washer (3,000-4,000 PSI, 4-8 GPM) with thermal relief valve.
- Surface cleaner attachment (15-24 inch diameter) for flat horizontal surfaces.
- Turbo nozzle (0-15 degree) for stubborn stains and vertical surfaces.
- Wide fan nozzle (25-40 degree) for general rinsing and delicate surfaces.
- Low-pressure chemical injector or downstream injector kit.
- Biodegradable concrete cleaner or sodium hypochlorite-based soft wash solution (12.5% concentration).
- Degreaser (for oil stains on asphalt or concrete).
- Garden hose with backflow preventer.
- 5-gallon buckets for mixing chemicals.
- Stiff-bristle push broom or scrub brush.
- Plastic sheeting or drop cloths to protect adjacent landscaping and building surfaces.
- Pressure washer nozzle cleaning kit (small wire or needle).

- Teflon tape for hose connections.
- Personal protective equipment (PPE) as listed in Section 2.0.

4.0 Step-by-Step Maintenance Procedure

1. Perform a pre-operation inspection of the pressure washer: check oil level, fuel level (if gas), air filter, hose condition, and nozzle condition. Ensure all connections are tight and leak-free.
2. Set up the work zone: place wet floor signs, cones, and barricades. Cover any nearby plants, electrical outlets, or sensitive surfaces with plastic sheeting. Wet down surrounding vegetation to dilute any chemical overspray.
3. Pre-wet the hardscape surface using a garden hose or the pressure washer on low pressure (wide fan nozzle, 40 degrees) to remove loose debris and saturate the surface. This helps prevent detergent from drying too quickly.
4. Apply cleaning solution: Using the low-pressure injector, apply a biodegradable concrete cleaner or a 1:4 sodium hypochlorite solution (12.5% bleach to water) to the surface. For oil stains, apply degreaser directly and let dwell for 10-15 minutes. Do not let chemicals dry on the surface.
5. Agitate the surface: Use a stiff-bristle push broom or scrub brush to work the cleaning solution into the pores and joints of the hardscape. Focus on stained areas and joints with organic growth.
6. Rinse the surface thoroughly with the pressure washer using a wide fan nozzle (25-40 degrees) at a distance of 12-18 inches from the surface. Work in overlapping passes from top to bottom to avoid streaking.
7. For flat horizontal surfaces (sidewalks, patios, parking lots), attach the surface cleaner attachment. Operate at a steady pace, overlapping each pass by 50%. Keep the surface cleaner flat against the surface to prevent spray from lifting.
8. For vertical surfaces (walls, retaining walls, curbs), use the turbo nozzle or a 15-degree nozzle. Hold the wand at a 45-degree angle to the surface and work from bottom to top to prevent streaking. Maintain a consistent distance of 6-12 inches.
9. For stubborn stains (rust, oil, gum), switch to a turbo nozzle or a 0-degree nozzle (use with extreme caution). Hold the nozzle 2-4 inches from the stain and move in a circular motion. Do not linger on one spot to avoid etching.
10. After cleaning, flush the pressure washer system with clean water for 2 minutes to remove any residual chemicals from the pump, hose, and wand. Disconnect the chemical injector and run clear water through it.
11. Inspect the cleaned surface for any missed spots or remaining stains. Re-treat as necessary with spot cleaning using a turbo nozzle or chemical reapplication.
12. Remove all barricades, signs, and plastic sheeting. Dispose of any chemical containers according to local regulations. Rinse down any overspray on vegetation with clean water.

5.0 Verification & Return to Service

1. Visually inspect the entire cleaned area for uniform appearance, absence of streaks, and removal of organic growth and stains. Check for any surface damage such as etching, pitting, or lifted joints.
2. Perform a slip resistance test: walk on the wet surface to ensure it is not excessively slippery. If slippery, rinse again with plain water to remove any residual soap film.
3. Check that all drains, gutters, and catch basins are free of debris and flowing properly. Clear any blockages caused by dislodged dirt or organic matter.
4. Allow the surface to dry completely (typically 2-4 hours depending on weather) before reopening the area to pedestrian or vehicle traffic. Post 'Wet Surface' signs until dry.
5. Document the work: take before and after photos, record the date, time, chemicals used, and any issues encountered. Sign off on the PM work order in ServiceGrid.

6. Perform a final equipment check: drain any remaining water from the pressure washer pump (if freezing temperatures are expected), store hoses and nozzles properly, and refuel/check oil for next use.

Regulatory Disclaimer: This document is a generic maintenance template provided for educational and informational purposes only. It does not constitute professional engineering or reliability advice. The end-user assumes all liability for validating all step sequences, torque specs, and LOTO protocols against specific machinery OEM manuals before deployment to a live production floor.