



HydraMotion Cleaning Systems

Frequently Asked Questions

1. History of the surface cleaner

As residential and commercial construction grew, the need for parking and paved storage created a need for a more efficient method of keeping large surface areas clean. Initially, aggressive chemical cleaners were used to remove oils, molds and soils but environmental considerations soon made that method infeasible. Steam and pressure washing became the preferred practice, especially in the South where mildew is a pervasive problem. Several companies designed and built large, heavy, motor driven self-propelled equipment for commercial and industrial use. But with the increased volume of flat work cleaning of the 1980s came the need for specialty contractor operated walk behind equipment. Early technology has been supplanted since by innovative vertical and other special use equipment and competitive price levels which makes ownership by contractors affordable.

2. What types of surfaces can be cleaned?

- Asphalt and concrete
- Almost any siding surface from brick to stucco to metal, vinyl or wood siding
- Pavers and smoother stone surfaces
- Any other material which is impervious to and insoluble in water

3. When do surface cleaners come in handy, as opposed to gun and wand?

Surface cleaners are indicated when there is a large, flat surface--horizontal or vertical--to be cleaned in a relatively short period of time. A 20" surface cleaner has an impingement foot print of over 300 square inches whereas a typical wand has a footprint of barely a few square inches. Also, the impingement distance for surface cleaner nozzles is consistent through out the cleaning process and optimum while the wand, being user controlled, is not. This results in higher cleaning efficiency, eliminates zebra striping and an improved appearance quality.

4. Do surface cleaners clean effectively as compared to gun and wand?

Surface Cleaners are substantially more effective, efficient and consistent. This is because the nozzles are rotating at 2000-3000 rpm. This allows the spray tips to always be at the optimum distance from the surface and discharging at the optimum angle of impingement for maximum cleaning. This not only makes for more effective cleaning but also reduces water usage and the spill cleanup burden.

5. How much time can be saved using a pressure cleaner on a 40 x 40 square foot area?

Assuming an impingement area for a gun and wand of 40 square inches and a required residence time for spray impingement of 5 seconds, a 40x40 square foot area would be 8 hours, or one man day. Assuming an impingement area for a surface cleaner of 300 square inches, the same job could be accomplished in about an hour and a quarter. Approximately less than 30% of the time required with a wand. (See Sidewinder demonstration video)

6. How do surface cleaners compare in price to gun and wand pressure washers?

The cost is slightly higher; however, the time savings usually allows the unit to pay for itself in only a few cleaning projects

7. What are the cons?

There is extra procurement cost and additional maintenance. They require more storage and transportation space if a foldable handle is not purchased.

8. How is the surface cleaner constructed?

SideWinder uses a rigid or foldable handle, handle mounted trigger assembly, a dead man's lever control, a metal or thermoplastic casing, which encases a freely turning swivel assembly on which a rotating spray arm is attached. High pressure discharge nozzles are mounted at each end of the tubular arm at an angle which propels the rotation of the bar. Handles are usually aluminum to reduce the weight of the unit. SideWinders unlike many other brands are fully constructed in the USA with the highest manufacturing standards - unlike some cleaners made offshore.

9. Role of the Swivel

The heart of the unit is the swivel. It is an assembly of precisely machined components that is subject to considerable abrasion, erosion and friction under wet, particulate entrained conditions. Under these conditions, wear and damage is inevitable. For that reason, the swivel design should provide for maximum exclusion of external moisture and abrasives through the use of high efficiency seals. Component materials should be corrosion resistant and galvanically matched as well as possess hardness and tensile properties to ensure maximum use-life. As the swivel wears, or if it is damaged, rotational speeds are slowed and cleaning efficiency suffers and maintenance/repair costs increased. The user should also match the flow rates of his pressure washer to the capacity of the swivel. It is important to acquire a swivel that has at least a 12 GPM flow capacity. This allows the necessary flow and pressure to reach the spray tips and thereby achieve maximum cleaning effectiveness.

10. What is the HydraFlow cover made of?

The HydraFlow cover focuses the cleaning power of the nozzles to the flat surface. The deck geometry improves cleaning effectiveness and eliminates zebra striping.

HydraMotion uses a grade of urethane that meets the Military Specification for strength, temperature, impact and erosive wear. Other manufacturers use materials like plastic fiberglass, aluminum or vinyl. Aluminum is easily dented and not easily repaired if perforated or torn. Because it is more rigid than other materials, aluminum casings tend to vibrate more and result in a weight penalty during use. Fiberglass and plastics have a tendency to crack or warp with extended use and elevated temperatures. Whatever the casing material, it should be capable of operating at temperatures over that of boiling water and resisting the inevitable erosion and abrasion that is part and parcel of normal operation. Again, a warranty of two years on this assembly ultimately gives the user the best estimate of the unit's life.

11. What should contractors consider when buying SideWinder surface cleaner?

- Warranty Period; two full years provided by HydraMotion is the industry's longest
- Ease of repair and replacement part cost
- The percentage of their total work associated with flat surfaces
- The amortized cost of equipment versus the value of the expected productivity gain.
- Performance of the surface cleaner
- The durability, portability, longevity and ease of maintenance.

12. SideWinder Operating specifications

- Insist on Increased rear shaft hardness and LP seals throughout to extend swivel life and reduce down time for repair and maintenance
- Check the erosion resistance and temperature capacity of the exterior wear items like the cover and brush
- A spray bar assembly to allow the user to match the impingement angle to the surface material (ie. Using a higher angle to reduce impact on softer materials like a wood deck)
- All model components should be interchangeable and components modular for ease of repair
- Swivel components should be cost effective and readily available when necessary
- Unit should be completely field repairable
- Should be sufficiently portable, light and easily connected
- Have the option of foldable and/or rigid handles, as needed and interchangeable
- Insist on two year warrantees and most comprehensive component coverage
- Insist on fabrication standards and materials covered by industry or Military Specifications
- Check out aftermarket service record of the company including turn time and parts availability

13. Cleaning width

The horsepower of the pressure washer being used defines the cleaning capacity of any accessory. The impact force, or mechanical energy, is providing cleaning effect. Therefore, there must be an efficient balance between flow and pressure. The idea is to get as much cleaner flow as possible on the greatest soiled area at the highest attainable pressure to realize the maximum removal.

At any given fluid motive pressure, the longer the swivel arm, the slower the rotation. Slower rotation means fewer passes of the discharge spray over a soiled area. Fewer passes means reduced exposure of a soiled area to the pressurized spray. Then too, larger units are more unwieldy to operate, store and transport.

Wider is better may be true for Pontiacs but is not necessarily true to surface cleaners.

14. Float vs. Wheels

Generally, “floating” is preferable to rolling. First, the floating unit is easier to guide and move laterally. There are no bearings and caster swivels to wear, reducing maintenance. Also, floating permits easier operation on rougher and irregular surfaces like stone, roofs, pavers, sidewalks and decks. Very wide units, because of their increased weight and geometry, often require wheels.

15. What are some tips for contractors?

- Keep the unit on flat surfaces
- Prepare the surface by removing extraneous particulate which can wear or damage moving parts.
- Keep sufficient slack in hosing to prevent fitting damage.
- Make sure the nozzle angle adjustment is correct to ensure optimum rotation and discharge impingement.

16. Damage due to improper use

- Bent swivel arm due to impact with extraneous surface objects can cause excessive vibration
- Failure to prepare the surface to be cleaned can result in excessive swivel wear.
- Use on steep inclines can stress handles
- Failure to maintain nozzle angle adjustments can cause vibration and reduce cleaning effect.

17. Accessories

Users can purchase shut off assemblies for the inlet, high pressure filters to protect the swivel from foreign object damage (FOD), quick connects for hose inlet/outlets and fixed vs. collapsible handle configurations.

18. Added Features

Improvements to core designs should allow the user to rapidly implement improvements. This also protects the distributor from inventory obsolescence.