

Water Jet Solutions for Surface Preparation



*The Leader in High-Pressure
Water Jet Technology*

Productivity that pays for itself

It's easy to see why so many surface preparation contractors are switching to NLB water jetting these days. It's simply the most productive, economical way to achieve the surface you need for good coating adhesion, while fully respecting the environment.

NLB water jetting quickly removes coatings, rust, and other tough adherents without the hazards of grit blasting. The resulting surface meets or exceeds all recognized standards (including the WJ-1 or "white metal" specification of NACE No. 5 and SSPC-SP-12, and SIS Sa 3).

Water jetting is also the only way to meet the SC-2 standard for removing soluble salts, which hamper adhesion and often lead to coating failure. During grit blasting, these salts are often trapped in cavities within the metal. But ultra-high pressure (up to 40,000 psi, or 2,800 bar) water jetting cleans deeply enough to prevent these invisible "corrosion cells" from forming, and even restores the surface's original profile (see inset).

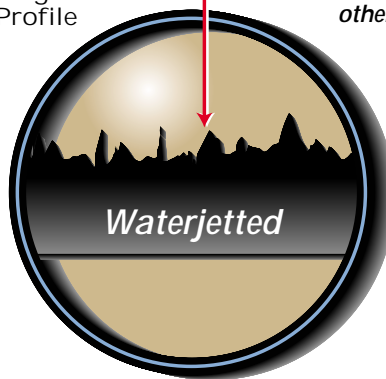
Today this power is readily available — for manual or automated surface preparation — with NLB's standard-setting HydroPrep™ system. And for applications that don't demand ultra-high pressure, our 5,000 to 25,000 psi (350 to 1,700 bar) pumps and accessories are every bit as productive and reliable.

NLB's HydroPrep™ system gives you the productivity of grit blasting without the expense, hazards and clean-up problems. Its vacuum recovery feature not only simplifies disposal, but leaves a clean, dry surface — free of flash rusting and ready to recoat. For details and specifications, please read on.



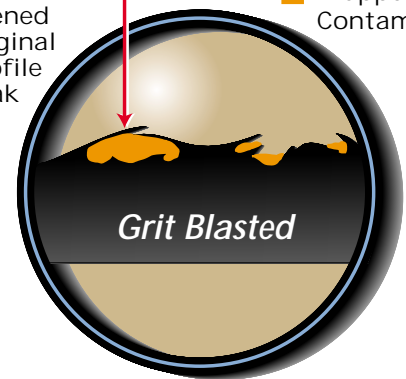
Water jetting is ideal for preparing ships, tanks and other large surfaces.

Original Profile



Bent and Peened original profile peak

■ Trapped Contaminants



You can prepare concrete surfaces (shown here) as easily as metal.

HYDROPREP™ SYSTEM

When your project involves large, vertical surfaces, you need NLB's versatile HydroPrep™ system. It features a rugged ULTRA-CLEAN® pump unit and vacuum recovery of wastewater and debris, plus the specific accessories you need for manual or automated work.

Crawler

For tall surfaces, such as tanks and ship hulls, the automated SRT-10 Crawler* is your most productive choice. "Driven" from a remote operator console, it moves up, down and sideways while patented SPIN JET® nozzles strip away epoxies and other coatings.

The Crawler's maneuverability comes from its unique pivoting design, which allows the drive to rotate around the SPIN JET® seal without snarling the hoses.

A vacuum system lets the Crawler grip the surface (even over welds) as well as recover debris and wastewater. A winch skid assembly and locking pulleys act as a fall arrest system.

*patent pending

VertaJet™

The handheld VertaJet™ SRT-6 is ideal for smaller jobs, especially if you have to work around corners, overhangs, rivets, or other obstructions. The VertaJet is compact, lightweight and easy to handle. It is also counterbalanced, to further minimize operator fatigue. Its SPIN JET® nozzles create a 6" (15 cm) cleaning path.



SRT-10 Crawler



VertaJet™ SRT-6

| Accessory | Max. Pressure | Max. Flow | Air Requirement | Vacuum Requirement | Vacuum Attachment |
|-----------------|---------------------------|----------------------|---|---|-------------------|
| SRT-10 Crawler | 40,000 psi (2,800 bar) | 10 gpm (37.8 lpm) | 70 scfm @ 100 psi (33 l/s @ 6.9 bar) | 500 cfm @ 24" Hg (850 m³/hr @ 24" Hg) | 4" (10.2 cm) |
| SRT-6 VertaJet™ | 40,000 psi (2,800 bar) | 6 gpm (23 lpm) | 20 scfm @ 90 psi (9.4 l/s @ 6 bar) | 90-300 cfm @ 3" Hg max. (153-510 m³/hr @ 3" Hg max.) | 3" (7.6 cm) |

WATER JET VS. GRIT

When you consider all the factors, NLB's HydroPrep™ system consistently outperforms grit blasting. In addition to achieving a quality surface, water jetting:

- significantly simplifies clean-up and disposal (see chart);
- minimizes operating and maintenance costs;
- can be performed nearly anywhere;
- drastically reduces airborne pollutants (see table);
- removes invisible contaminants (e.g. entrapped chlorides);
- is virtually dust-free, so won't damage nearby equipment;
- operates at lower sound levels;
- uses only a few gallons of water (usually recycled); and
- requires minimal training.

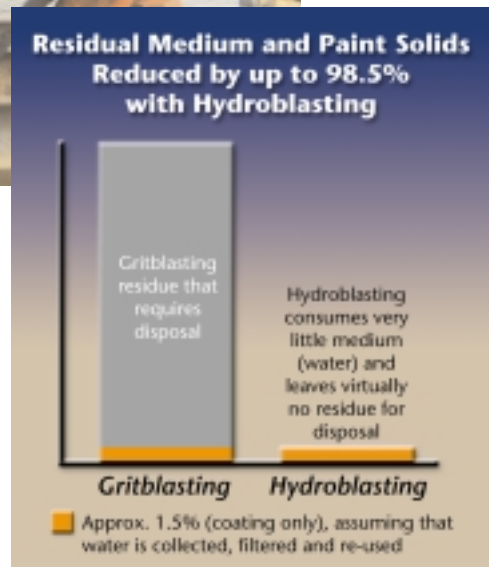
WHICH PRESSURE?

NLB water jet equipment is available in a wide range of pressures to suit your application. You should match pressure to the task as follows (general guidelines only; please call NLB for specific advice):

- To remove loose, flaking paint or build-ups of grease or oil – 5,000 to 10,000 psi (350 to 700 bar);
- To remove rust blisters and flaking paint without disturbing tightly bonded paint – 10,000 to 20,000 psi (700 to 1,400 bar);
- For complete removal, down to bare metal – ultra-high pressure, or 20,000 to 40,000 psi (1,400 to 2,800 bar).



Hand lancing brings the benefits of water jetting to hard-to-reach areas.



Report Confirms Less Lead From Water Jetting

| Method | Micrograms of Lead per Cubic Meter |
|--|------------------------------------|
| Low-Volume Slurry Blasting | 5 |
| High-Pressure Water Jetting - 20,000 to 30,000 psi (1,400 to 2,500 bar) | 8 |
| Hand and Powered Tool Cleaning | 680 |
| Containment with Recyclable Metallic Media | 3,015 |
| Open Air Abrasive Blasting | 13,439 |

Source: National Shipbuilding Research Program, 1998

PROVEN ACCESSORIES

Contractors depend on NLB for innovative water jet accessories that stand up to the toughest operating conditions. Some of our surface preparation accessories are highlighted here.

VORTEX™ **Floor and Deck Cleaners**

NLB's SPIN JET® units, the standard-setters for stripping floors, decks and grates, are as maneuverable as they are powerful. The Vortex™ 36-9900-15A* is made of light-weight aluminum, with an adjustable handle to maximize operator comfort. The Vortex™ 36-9950-15A adds vacuum recovery.

NCG8400A-2 **Rotating Lance**

NLB's NCG8400A-2 Rotating Lance produces a powerful ultra-high pressure jetting spray. Weighing just 16 lbs. (7.3 kg), it features dual triggers to minimize accidental actuation. A variety of heads are available, to suit many applications.

NLB8466 **Bi-Mode™ Valve**

The Bi-Mode™ Valve lets you switch from single to dual-lance operation with a simple nozzle change, and "dumps" pressure should your compressed air supply fail. It works with the VertaJet™, Crawler, and rotating lances.

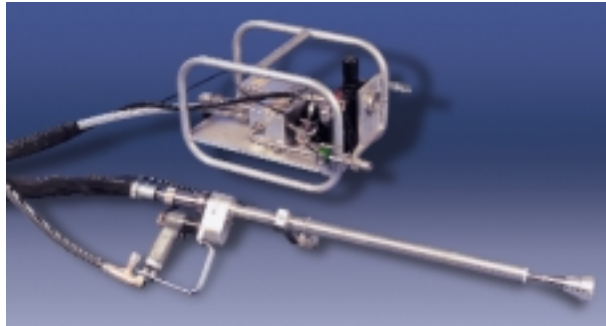
Ship Bottom Cleaner

The self-propelled SBC36-8300-15A* is ideal for removing paint and coatings from ship bottoms and other overhead surfaces. It is pneumatically operated, with handle-mounted controls.

*patent pending



Vortex™ 36-9950-15A



NLB8466 BiMode™ valve (top) and NCG8400A lance



Ship Bottom Cleaner SBC36-8300-15A

| Accessory | Max. Pressure | Max. Flow | Air Requirement | Vacuum Requirement | Vacuum Attachment |
|---------------------|---------------------------|--------------------|--|--|-------------------|
| Vortex™ 36-9900-15A | 40,000 psi (2,800 bar) | 11 gpm (42 lpm) | 50 scfm @ 65 psi (23.6 l/s @ 4.5 bar) | N/A | N/A |
| Vortex™ 36-9950-15A | 40,000 psi (2,800 bar) | 11 gpm (42 lpm) | 50 scfm @ 65 psi (23.6 l/s @ 4.5 bar) | 1,500 cfm @ 1" Hg (2,550 m³/hr @ 1" Hg) | 4" (10.2 cm) |
| NCG8400A-2 | 40,000 psi (2,800 bar) | 10 gpm (38 lpm) | 20 scfm @ 90 psi (9.4 l/s @ 6 bar) | N/A | N/A |
| NLB8466 | 40,000 psi (2,800 bar) | 10 gpm (38 lpm) | 10 scfm @ 90 psi (4.7 l/s @ 6 bar) | N/A | N/A |
| SBC36-8300-15A | 40,000 psi (2,800 bar) | 6 gpm (23 lpm) | 70 scfm @ 100 psi (33 l/s @ 6.9 bar) | 1,500 cfm @ 1" Hg (2,550 m³/hr @ 1" Hg) | 4" (10.2 cm) |

THE NLB ADVANTAGE

NLB has become a global leader in high-pressure and ultra-high pressure water jetting by providing our customers with the most dependable pumps and support in the industry. With NLB, you get:

- the broadest range of pump pressures, flows and horsepower, available with diesel or electric power;
- a simple, low-rpm pump design that minimizes wear, thus increasing uptime and simplifying maintenance;
- heavy-duty construction for continuous duty under tough operating conditions;
- low operating costs, as well as economical (and readily available) parts;
- the industry's largest selection of accessories (lances, crawlers, protective clothing, etc.);
- your choice of purchase, rental or lease, from convenient regional offices;
- factory-trained service technicians, always on-call;
- comprehensive product and safety training;
- dedicated engineering and R&D efforts, all in-house;
- a global network of dependable, full-service distributors with comprehensive spare parts inventories.



Model 40250D
40,000 psi (2,800 bar)
10 gpm (37.9 lpm)



Model 40201D
40,000 psi (2,800 bar)
6 gpm (22.7 lpm)



Model 4075D
40,000 psi (2,800 bar)
3 gpm (11.4 lpm)



Model 4030D
40,000 psi (2,800 bar)
1.5 gpm (5.7 lpm)

NLB. The Contractor's Choice.



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