

Hand Lances



Lances are the basic tools of water jetting, and NLB offers more choices — with more safety and ergonomic features — than any other manufacturer. From adjustable grips and shoulder supports to trigger locks and a patented quick-change cartridge seal, NLB leads the way in operator protection and comfort.

This section features **lances** that work with a wide range of nozzles — dual-trigger, underwater dump, and shut-off models. All feature rigid

stainless steel construction with quick-coupling hose hook-up.

Also in this section, you'll find related accessories — a 40,000 psi **rotating lance**, **vacuum attachment**, **lance stands**, and **whip hoses**.

NOTE: Operators should not withstand back thrust of more than 1/3 their body weight for an extended time. Please refer to the thrust chart on Pages 98-99 and the formula on the back cover.

286 SERIES HAS THE FEATURES YOU ASKED FOR

NLB's 286 series of water jet lances are designed for maximum operator protection and productivity. A patented trigger (U.S. patent no. 5,636,789) lets the operator dump pressure immediately by simply pushing forward. It can be operated

with just 8-to-12 pounds of pressure, and a one-finger latch prevents accidental actuation.

The key is a quick-change cartridge that you can replace in the field in less than 60 seconds. This unique

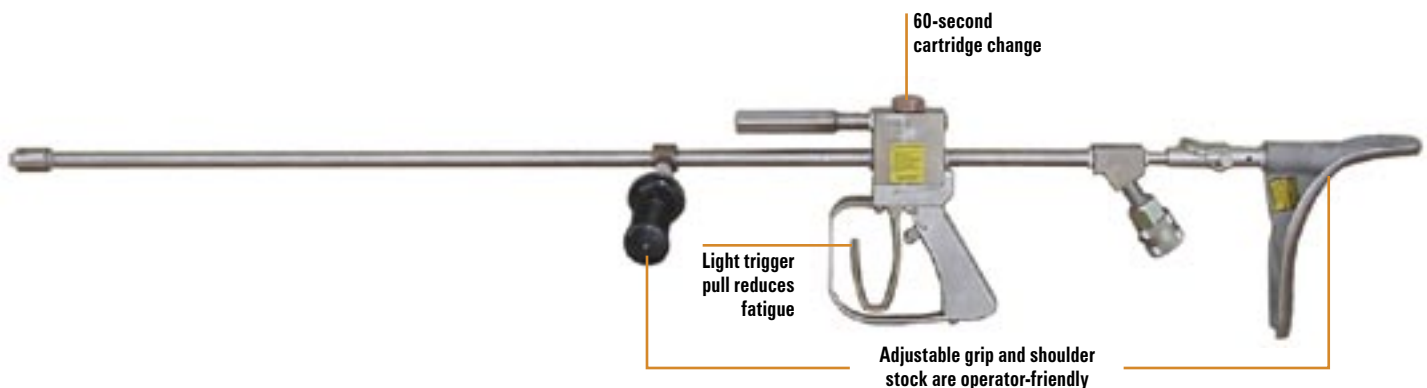
feature is available in all 9 models, with operating pressures as low as 10,000 psi (700 bar) and as high as 40,000 psi (2,800 bar). Please refer to the accompanying tables for features, benefits and key specifications and dimensions.



Quick-change cartridge seal reduces downtime

Features and Benefits

- Dump type helps protect operator
- Replace cartridge in under 60 seconds
- Lightweight
- Easy trigger actuation, 8 to 12 lbs. (3.6 to 5.5 kg)
- New trigger design allows operator to force lance into dump mode (Patent No. 5,636,789)
- One-finger latch to prevent accidental actuation
- Adjustable shoulder stock and hand grip
- Double trigger models require pressure on both triggers to actuate lance



Operator-Friendly

Quick-change cartridge and a choice of barrels

- 3/8" barrel is lightweight for easy handling
- 1/2" barrel is even more rugged and durable

NCG10-286, NCG15-286



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
NCG10-286-1/2						
10,000 psi <i>(700 bar)</i>	12 lbs. <i>(5.5 kg)</i>	3/8" NPT Male	1/2" NPT Male	36" <i>(91.5 cm)</i>	BM15915	SW-15K-7
NCG15-286-3/8						
15,000 psi <i>(1,035 bar)</i>	12 lbs. <i>(5.5 kg)</i>	3/8" NPT Male	3/8" NPT Male	36" <i>(91.5 cm)</i>	BM15915	SW-15K-7

Patent No. 5,636,789

More Protection:

Dual-trigger lance needs two hands to actuate

- Must squeeze both triggers, enhancing safety
- Lance can be forced into dump mode

NCG10-286DT, NCG15-286DT



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
NCG10-286DT-1/2						
10,000 psi <i>(700 bar)</i>	16 lbs. <i>(7.3 kg)</i>	3/8" NPT Male	1/2" NPT Male	36" <i>(91.5 cm)</i>	BM15915	SW-15K-7
NCG15-286DT-3/8						
15,000 psi <i>(1,035 bar)</i>	16 lbs. <i>(7.3 kg)</i>	3/8" NPT Male	3/8" NPT Male	36" <i>(91.5 cm)</i>	BM15915	SW-15K-7

Patent No. 5,636,789

Underwater Lances

Specially designed for underwater use

- Ideal for piers, pilings, barnacle removal
- Second nozzle at rear balances thrust of jetting action

NCG15-286UW



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
15,000 psi <i>(1,035 bar)</i>	12 lbs. <i>(5.5 kg)</i>	3/8" NPT Male	3/8" NPT Male	36" <i>(91.5 cm)</i>	BM15915	SW-15K-7

Patent No. 5,636,789

Hand Lances

20K Underwater

- Ideal for underwater applications, such as barnacle removal and concrete hydrodemolition
- Balances thrust with a second nozzle at the rear

NCG24-286ZT



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
24,000 psi <i>(1,680 bar)</i>	13.5 lbs. <i>(16 kg)</i>	9/16" MP LHF	9/16" MP LHF	36" <i>(91.5 cm)</i>	BM15924	BM19662

Patent No. 5,636,789

Up to 24,000 psi

Now the features that made NLB's 10,000 psi hand lances so popular are available at 24,000 psi!

- High flow (up to 35 gpm/
133 lpm)
- Rebuild in 60 seconds

NCG24-286



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
24,000 psi <i>(1,680 bar)</i>	13.5 lbs. <i>(16 kg)</i>	9/16" MP LHF	9/16" MP LHF	36" <i>(91.5 cm)</i>	BM15924	BM19662

Patent No. 5,636,789

Dual-Trigger

The ultimate in operator protection:

- Requires two hands on the lance during operation
- Can be forced into dump mode with either trigger

NCG24-286DT



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
24,000 psi <i>(1,680 bar)</i>	13.5 lbs. <i>(16 kg)</i>	9/16" MP LHF	9/16" MP LHF	36" <i>(91.5 cm)</i>	BM15924	BM19662

Patent No. 5,636,789

UHP with Quick-Change Cartridge

UHP water jetting has never been so easy. This lance has all the easy-rebuild features as other NLB 286 accessories and:

- Lightweight, ergonomic design
- Can be used with NLB SRH40-77 to produce rotating water jets without compressed air

NCG40-286 **NEW!**



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Replaceable Cartridge	Optional Whip Hose
40,000 psi (2,800 bar)	13.5 lbs. (16 kg)	9/16" HP LHF	9/16" HP LHF	36" (91.5 cm)	BM20935	BM21403

Patent No. 5,636,789

Dry Shut-off

- For lower pressure applications
- Requires unloader valve (p. 29)



Pressure Rating	Weight	Inlet Connection	Barrel Connection	Barrel Length	Rebuild Kit	Optional Whip Hose
NSG-300A						
10,000 psi (700 bar)	14 lbs. (6.4 kg)	1/2" NPT Female	3/8" NPT Male	36" (91.5 cm)	300ARBKT	SW-15K-7
NSG-600						
6,000 psi (415 bar)	7 lbs. (3.2 kg)	1/2" NPT Female	1/2" NPT 14BSP Male	36" (91.5 cm)	600RBKT	SW-15K-7
NSG-700						
4,000 psi (275 bar)	7 lbs. (3.2 kg)	3/8" NPT Female	1/4" NPT Male	36" (91.5 cm)	700RBKT	SW-15K-7

Patent No. 5,636,789

Hand Lances

Rotating Lances

For ultra-high pressure water jetting in a wider spray pattern, the best choice is usually a **rotating lance** with one of our specially-designed **multi-orifice heads**. The NCG8450A-3 and NCG8450LA-3 lances feature an air-driven swivel that drives the nozzle assembly. Use requires a **Bi-Mode™ valve** and a DM14150 hose assembly to connect them. A Bi-Mode™ valve lets two operators run lances from a single pump unit. (Dual lance operation also requires a CM13027 "Y" adapter. See Page 28.)

Key features of the NCG8450A-3 rotating lance include:

- Variable speed rotation, up to 3,000 rpm
- Field-repairable
- Dual-trigger actuation for operator protection
- Instant dump to low pressure when trigger is released
- Lightweight, ergonomic design



NCG8450A-3 and NCG8450LA-3

Max. Pressure	Rotation Speed Up to	Air	Inlet Connection	Barrel Connection	Barrel Length	Weight
NCG8450A-3						
40,000 psi (2,800 bar)	3,000 rpm	22 cfm @ 90 psi (10.4 l/s @ 6 bar)	9/16" - 18	9/16" - 18 RH	36" (91.4 cm)	16 lbs. (7.3 kg)
NCG8450LA-3						
40,000 psi (2,800 bar)	3,000 rpm	22 cfm @ 90 psi (10.4 l/s @ 6 bar)	9/16" - 18	9/16" - 18 RH	48" (1.2 m)	18 lbs. (8.2 kg)

Bi-Mode™ Valve

The field-repairable NLB Bi-Mode™ valve can significantly improve UHP system productivity. It uses the same quick-change cartridge valve as our 286 series lances and foot controls. User-friendly features include:

- 60-second cartridge replacement
- switch from 1-lance to 2-lance operation with a simple nozzle change
- rounded frame for easier carrying

A DM14150 hose assembly is required to connect a rotating lance to a Bi-Mode™ valve.



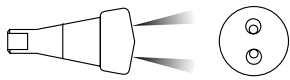
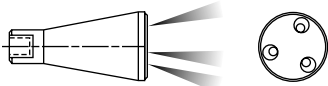
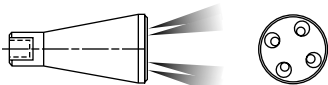
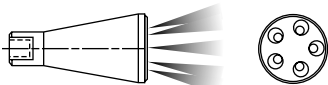
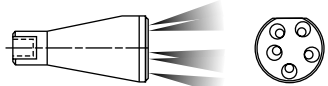
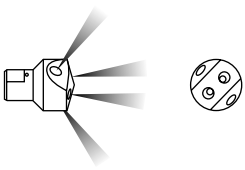
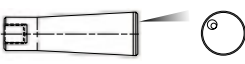
NLB8488

Max. Pressure	Inlet Connection	Outlet Connection	Weight	Cartridge
40,000 psi (2,800 bar)	1-1/8" - 12 UNF	9/16" - 18 male	55 lbs. (25 kg)	BM 24521

UHP Rotating Heads

NLB offers a wide selection of multi-orifice heads for the NCG8450A-3

rotating lance. All use our standard BN3539 0° nozzles and BA3894 nozzle

	Part No.	Orifices	Applications	Features/Benefits
	BM16592	2	Thick coatings, heavy deposits	Greater nozzle stand-off for operator flexibility
	BN10096-1	3	Medium coatings	Can remove coatings one layer at a time
	BN10096-2	4	Thin-to-medium coatings and deposits	Smaller orifices reduce impact, simplify removal in layers
	BN10096-3	5	Quick removal of thin coatings	Ideal for steel and other flat substrates
	DN12560	5	Quick removal of thin coatings	Offset nozzle pattern (15° and 60° off centerline) ideal for irregular surfaces
	CN12094-1	4	I-beams, H-beams, interior corners	Two 15° orifices, two 60° orifices
	CN12094-2	4	I-beams, H-beams, interior corners	Two 15° orifices (different offsets), two 60° orifices
	CN12094-3	4	Tight spaces - I-beams, H-beams, interior corners	Two 15° orifices, two 90° orifices
	CM27174	1	Extra-thick coatings	Single orifice maximizes impact force

NEW!

Vacuum Lances



The NLB VacLance attachment turns any NCG8450A-3 hand lance into a vacuum recovery surface preparation tool. This kit (DM16546) provides all the required components to convert any existing NCG8450A-3 series lance

into a vacuum recovery UHP hand lance. The unit requires approximately 100 CFM at 1 to 2 inches of vacuum. It will attach to a vacuum source via NLB's 2" vac hose (PM16758).

Hand Lances

Whip Hoses

NLB Whip Hoses help protect hand lance operators from potentially dangerous hose failures. Each whip hose assembly consists of a short length of hose (usually 10 feet or less) covered with a heavy, dense fabric or reinforced plastic tubing designed to diffuse the energy released by a hose failure.

NLB offers whip hoses for all popular pressures, from 10,000 to 40,000 psi (700 to 2,800 bar).

SW-10K



Whip Hose	Working Pressure	Connection to Lance	Connection to Hose
SW-10K	10,000 psi (700 bar)	NQC-22 Male	NQC-22 Male
SW-15K-7	15,000 psi (1,035 bar)	1/2" MNPT	1/2" MNPT
275-31	20,000 psi (1,400 bar)	3/4" MP Male	3/4"-16 Type M Swivel
BM19662	24,000 psi (1,680 bar)	9/16" MP Male	1"-12 UNF Type M Male
BM21403	40,000 psi (2,800 bar)	9/16" HP Male	9/16"-18 Type M Includes BM21400 for connection to 5/16 HP Hose
DM14150	40,000 psi (2,800 bar)	9/16" HP Male	1-1/8"-12 Female (to Bi-Mode™ Valve)

Lance Stands

NLB mobile lance stands let operators share the load of holding a pressurized lance, reducing both strain and risk. Personnel can therefore be rotated less frequently. Models are available in 10,000 psi, 20,000 psi and 40,000 psi (700, 1,400 and 2,800 bar), some with shields for additional operator protection.

NLB lance stands have many advantages:

- Absorb back thrust, minimizing fatigue
- Allows use of greater volume and pressure
- Instantaneous dump to low pressure upon lance trigger release
- 60° pivot point allows broad coverage (horizontal and vertical), for fewer station moves
- Easy maintenance
- Non-skid surface reduces risk of injury
- On wheels to go from job to job



MLS-10000-1A

Type	Max. Pressure	Max. Flow	Height Adjustment	Nozzle Adjustment	Horizontal Movement
Pneumatic Dump	10,000 psi (700 bar)	43 gpm (163 lpm)	36" to 50" (.9 to 1.3 m)	0-8" (0-20 cm)	60 degrees

Model MLS-10000-1A is also available as a dry shut-off unit.

MLS-20000-1A

Type	Max. Pressure	Max. Flow	Height Adjustment	Nozzle Adjustment	Horizontal Movement
Pneumatic Dump	20,000 psi (1,400 bar)	21 gpm (79 lpm)	36" to 50" (.9 to 1.3 m)	0-8" (0-20 cm)	60 degrees

MLS-36000-1A

Type	Max. Pressure	Max. Flow	Height Adjustment	Nozzle Adjustment	Horizontal Movement
Pneumatic Dump	40,000 psi (2,800 bar)	11 gpm (42 lpm)	41" to 53" (1 to 1.3 m)	0-8" (0-20 cm)	60 degrees