

## Ultra Lancing Machine

The Jet Edge Ultra Lancing Machine is a rotary-powered tool that utilizes ultra-high pressure (UHP) waterjets to effectively remove deposits and blockages from interior surfaces of tubular structures such as heat exchangers and pipes. The precisely controlled insertion, retraction and rotation speeds result in a perfectly cleaned inner surface.

The Ultra Lancing Machine is powered by a Jet Edge UHP intensifier pump that supplies 36,000 psi (2,500 bar) water to a 0-1500 rpm rotary swivel that transfers UHP water into the rotating lance. The lance advances into the tube using a variable speed air vane motor. The UHP waterjet stream exits through the small orifices in the nozzle tip. The nozzle tip can be continuously rotated requiring few jets to completely cover the surface. A wide selection of standard tips in a variety of jet patterns facilitate debris removal and flushing are available.

The system uses efficient water blasting techniques, allowing the operator to stay away from the UHP waterjet stream, and requires less manpower than alternative methods. Elimination of product splash back reduces fatigue, resulting in a safer, more alert crew. The low volume of UHP water produces better cleaning results with less waste disposal than alternative methods.

### Construction

- Extruded lightweight, high-strength alloys and rugged steel

### Standard Features

- Single lance model
- Extruded main carriage
- Steel support frame (bolt together)
- Adjustable standoff bars with clamps
- Manual Unidex XY positioning
- Operator control stand
- Fail safe pneumatic water on/off valve
- Pneumatic rotation & drive motors
- Options:
- Dual lance configuration
- Various manifold configurations & diameters
- Selection of orifice sizes
- Customized stroke lengths
- Rail extensions
- Pneumatic Unidex XY positioning

### Specifications

Operating pressure	36,000 psi (2500 bar)
Overall length	26 ft (7.93 m) (Additional rail extensions may be added)
Rail length	25 ft (7.62 m)
Stroke length	23 ft (7 m)
Rotation speed	0-1500 RPM
Maximum travel speed	2 ft/sec. (.61 m/sec.)
Weight	250 lbs (112.5 kg)
Width	11 in (28 cm)
Air supply	50 CFM at 90 psi (1416 lpm at 6.3 kg/cm <sup>2</sup> )
Minimum tube inside diameter	3/8 in (0.95 cm)

