

A TRENCHLESS TECHNOLOGY

We have developed the innovative and patented Tomahawk™ System for the cleaning and rehabilitation of deteriorated water distribution pipes.

Our technology doses abrasives into a high-volume, low-pressure airstream to remove internal tuberculation, corrosion and bitumen/tar liners from pipes.

Immediately following cleaning, we introduce an airborne quick-set NSF/ANSI-61 Certified polymeric resin to coat the pipe interior, leaving a continuous and bonded liner that greatly improves water flow and quality, while extending service life and increasing public confidence in the water system.

Patented in-pipe distributive bodies ensure full surface coverage.



WATERMAIN REHABILITATION

Clean, Line and Arrest Further Corrosion and Deterioration of Drinking Water Mains

Tomahawk™ System
193-5 Manitoba Street
Bracebridge, Ontario
Canada P1L 1S3
Phone: 1-800-267-9810
Fax: (705) 645-1122

email: info@envirologics.ca
www.tomahawksystem.ca

RESEARCH
PARTNERS



WATER INFRASTRUCTURE RENEWAL

COMMON WATERMAIN PROBLEMS



- Low chlorine residuals
- Reduced flow and pressure
- Discolored water / quality violations
- Leakage
- Increased non-revenue water (losses)
- Reduced structural integrity
- Premature deterioration
- Increased public risks
- Increased maintenance costs
- Restrained budgets
- Environmental constraints



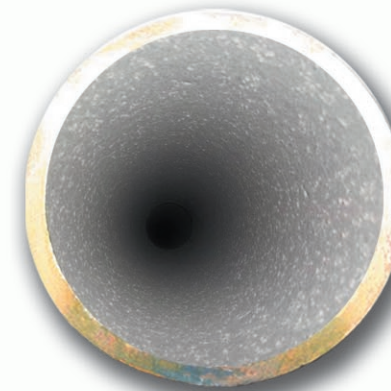
- Waterless, dust-free, environmentally friendly, trenchless process.
- Enclosed cleaning and lining process, limiting public viewing.
- No working head that can get stuck in pipe.
- Can negotiate one 22.5 degree elbow.
- Used mostly for ductile and cast iron, steel and asbestos cement pipe materials.



Meets or exceeds cleaning and surface preparation requirements per ASTM F3182-16

Step 1: CLEANING

Use of abrasives of various calibers in a high-volume, low-pressure airstream to clean and dry the pipe in preparation for lining.



After Cleaning

PROCEDURE

- Used for diameters of 100mm (4in) to 300mm (12in).
- Length up to 135m (450ft) per pipe segment.
- Up to 98% waste reduction over wet cleaning methods.
- Fast, 2-3 hours to clean typical pipe section.
- Removes tuberculation, bitumen or coal tar linings.
- Best-in-class surface preparation meets or exceeds ASTM F3182-16 standard.
- Dried pipe allows for immediate liner application.

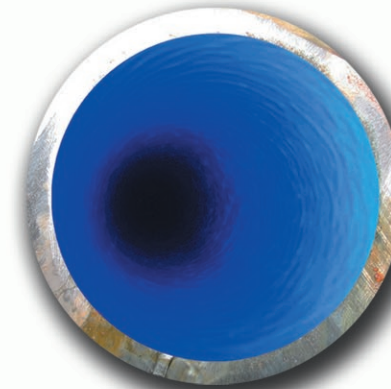
Patented Tomahawk Scout™



- * Airstream driven
- * Integrated forward-looking CCTV camera
- * Abrasive deflector
- * Target cleaning

Step 2: LINING

NSF/ANSI-61 Certified polymeric resin barrier coating is introduced inside the watermain following cleaning.



After Lining

PROCEDURE

- AWWA M28, Class I - to prevent future interior corrosion, deposit build-up and water quality violations.
- Excellent adhesion exceeding 250 psi bond strength as required by ASTM F3182-16 for SIPP applications.
- Fast, 30 minutes to line a typical pipe section.
- Rapid return-to-service.
- Full coverage at the joints and around the service connections, leaving no exposed surfaces.
- A smooth consistent thickness is achieved, providing a C-Factor above 110.
- Extends pipe service life for decades.

Methodology

Immediately following cleaning, polymeric resin is injected inside the pipe and added to the airstream. As a result, polymeric liner is aerodynamically distributed around the entire pipe's internal surface.

Patented in-pipe distributive bodies in the airstream ensures full coverage and even lining thickness.

