



ACE²⁵

ELEVATE

Lead & Leaks

Using AI to Certify Water Services as Lead-Free & Find Leaks Missed by Acoustics

Booth #1933

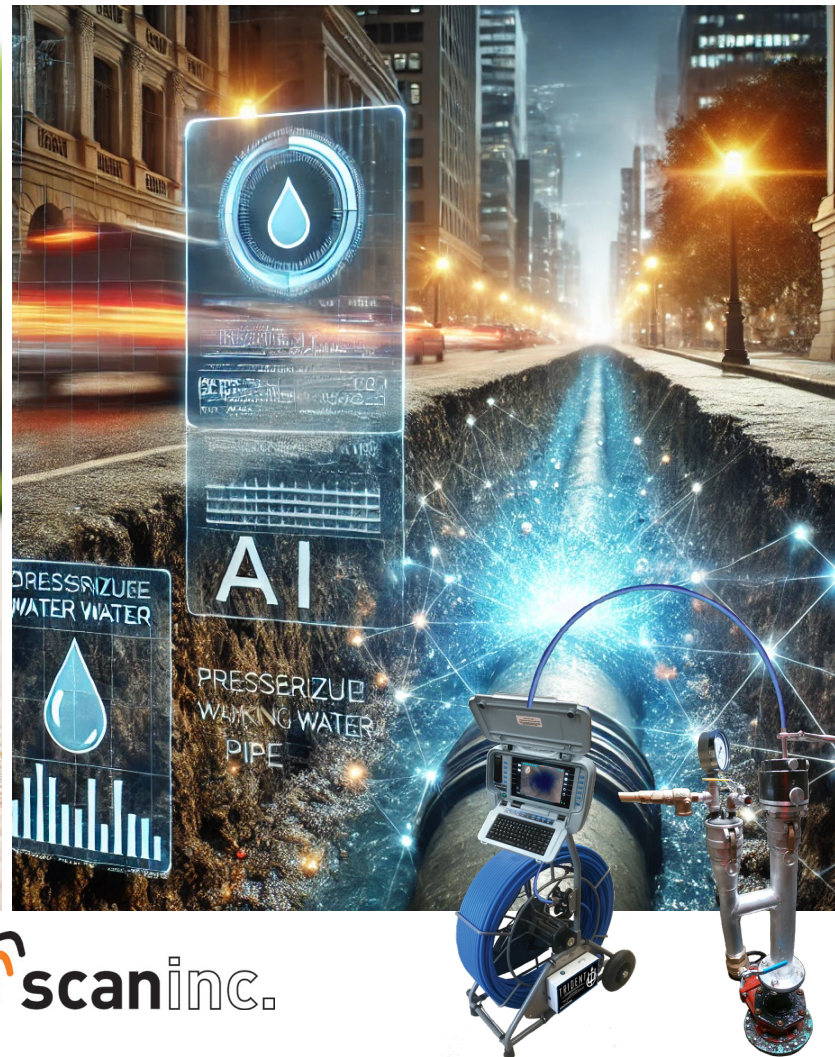
Wednesday 4:00PM-4:30PM
Mile High Ballroom 1ab



Lead Detection



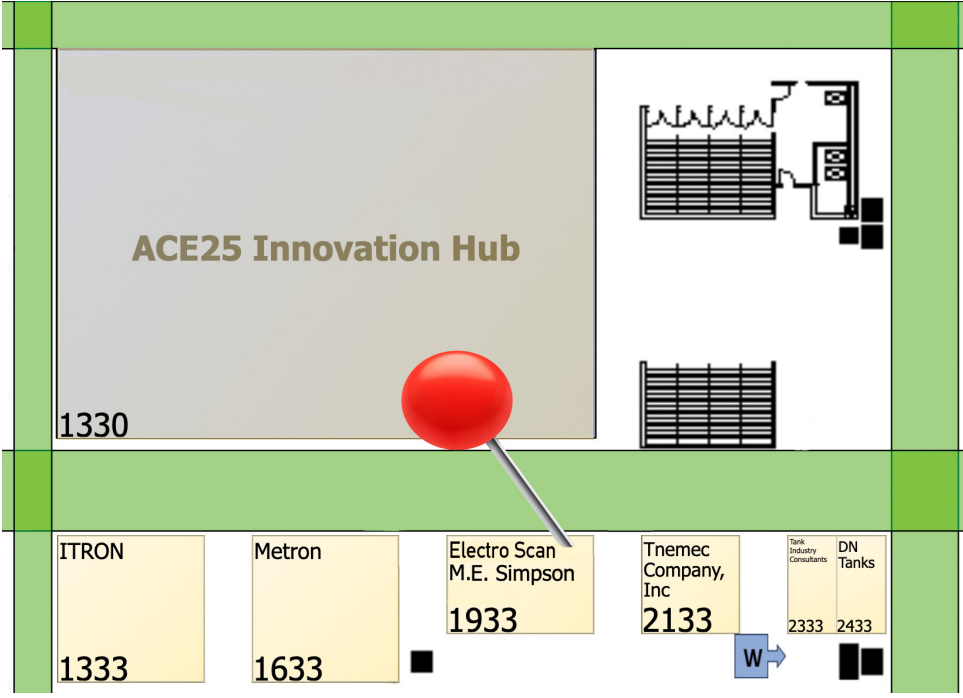
Leak Detection



electro^{scan}inc.



Over 10,000 Lead Inspections and Growing.
Booth #1933



**#1 Solution for
Lead Detection**

ACE SESSION

Wednesday, 4:00PM - 4:30PM Mountain Time

Mile High Ballroom 1ab

WED144 LEAK DETECTION TECHNOLOGY CASE STUDIES

CCTV of Pressurized Water Mains? Why This Is Now an Important Tool in the Water Industry Condition Assessment Toolbox!



Water utilities have not traditionally seen the value of televising pressurized water mains. Until now.

While most industry professionals agree that closed-circuit television (CCTV) cameras can't 'see' leaks, water utilities are combining CCTV cameras with new technology able to automatically identify leak locations and estimate flow rates, replacing less accurate acoustic sensors?

The result: a dramatic reduction in the digging of dry holes, a more complete assessment of full length pipes to dramatically improve water loss management. The secret is not using CCTV cameras for continuous recording. Instead, using new technology to know where to STOP the camera so AI can confirm water particulates exiting the pipe.



World's First AI Leak Detection Solution for Non-Metallic Pressurized Water Pipes

Including Cement-Mortar Lined & Ceramic Epoxy Lined Ductile Iron Pipe!

TRIDENT

Dual-Sensor AI-Based Leak Detection

- **TRIDENT** is a non-acoustic, machine-intelligent solution that locates and measures multiple leaks in a single pipe.
- **TRIDENT** uses a low-voltage, high frequency electrical current to locate all leaks with cm locational accuracy.
- **TRIDENT's** field design integrates electrical resistance testing (ERT) and a high resolution closed-circuit television (CCTV) camera.



ELECTRO SCAN



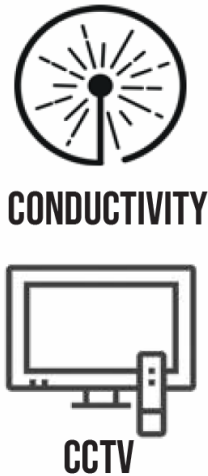
CCTV



AI Solution Unaffected By Ambient or Internal Pipe Noises, Air Pockets, Bedding, Customer Usage, Debris, Flow Velocity, Pipe Material, Pressure, Silt, or Temperature.

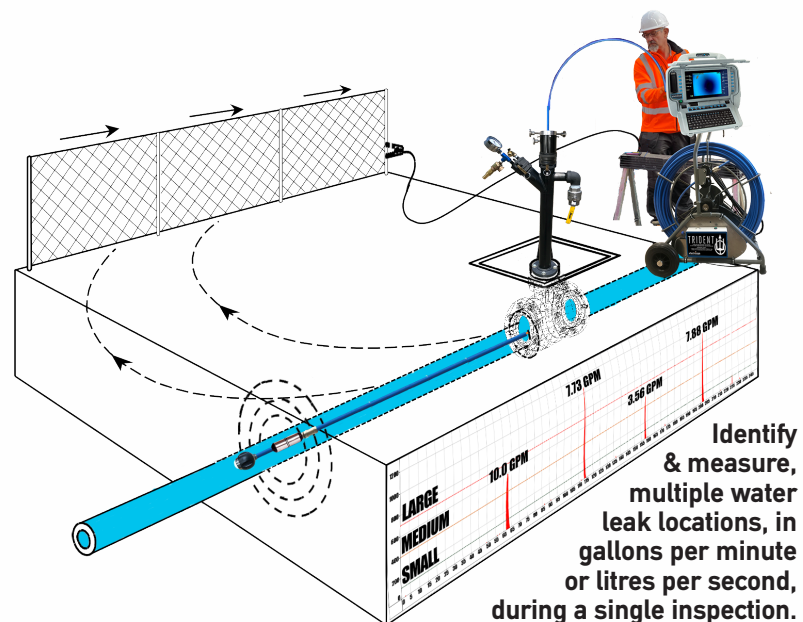
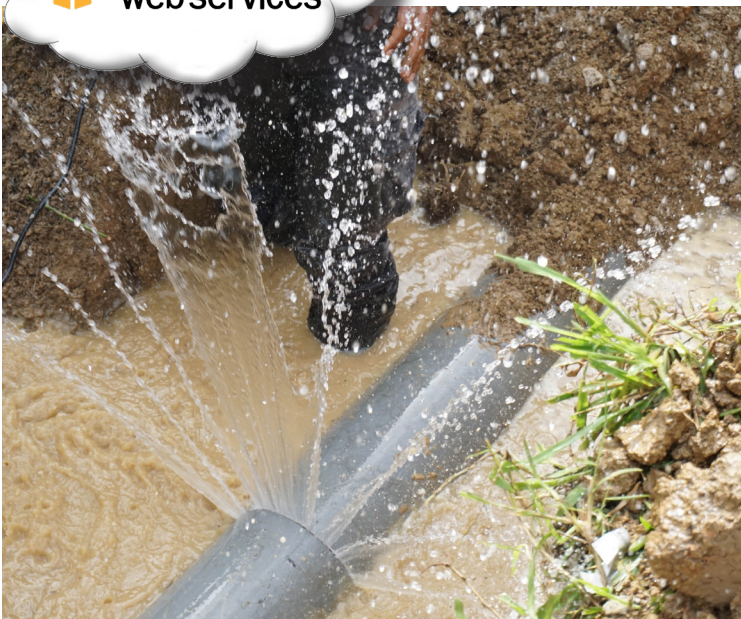


TRIDENT Dual-Sensor AI-Based Leak Detection



Condition	Performance
Probe Sensors	Low Voltage Conductivity FELL and CCTV
Pipe Diameters	4-10 inches (100-255mm)
Pressure	0 to 160 psi (11 bar)
Temperatures	5-30 °C, 41-86 °F
Flow Rate	Push Cable handles low flow or no-flow conditions
Pricing	Per Day or Per Meter based on total project size
Launch Points	-Installed 4 inch (100mm) or larger hot tap with a corresponding isolation gate or ball valve -Fire hydrant with a 4 inch (100mm) or larger barrel served by a corresponding isolation gate valve
Pipe Length Per Survey	Up to 400ft (120m) in either direction from access
Construction	High impact ABS & powder-coated, zinc-plated mild steel
Dimensions (Length x Width)	5 inches x 1.6 inches
Camera Features	Display: 10.1", 1280 x 800 HD color TFT Storage: Internal 128Gb, USB flash storage supported Power Options: Mains Input (100-240 VAC), DC Output (16 VDC) or Built-In Battery (4S2P) Focal Range: 10mm to ∞ Active Pixels: 768 x 492 (NTSC) / 765 x 582 (PAL) LED Luminance: ≥ 208 Lumens Resolution: ≥ 460 TVL

Locating the Leak First, Allows CCTV AI Particle Tracing to Confirm Leak Locations and Eliminate Dry Holes



1 Hydrant, Hot Tap or Valve



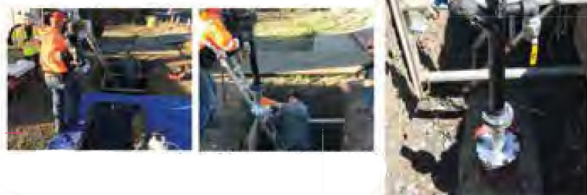
2 Flow Meter



3 Chlorination & Cleaning



4 Insertion Tube



5 Probe Launch



6 Push Reel

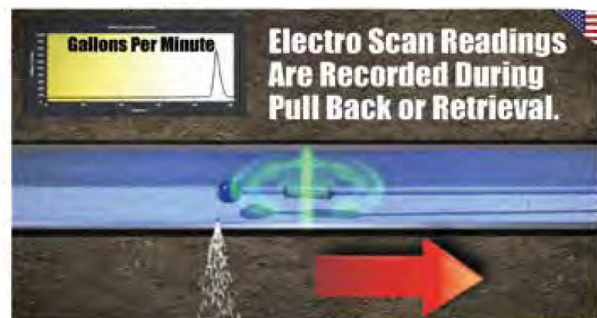
7 Data & Video Capture



8 CCTV *Push Forward Direction.*



9 Electro Scan *Pull Back Direction.*



10 Probe Retrieval

