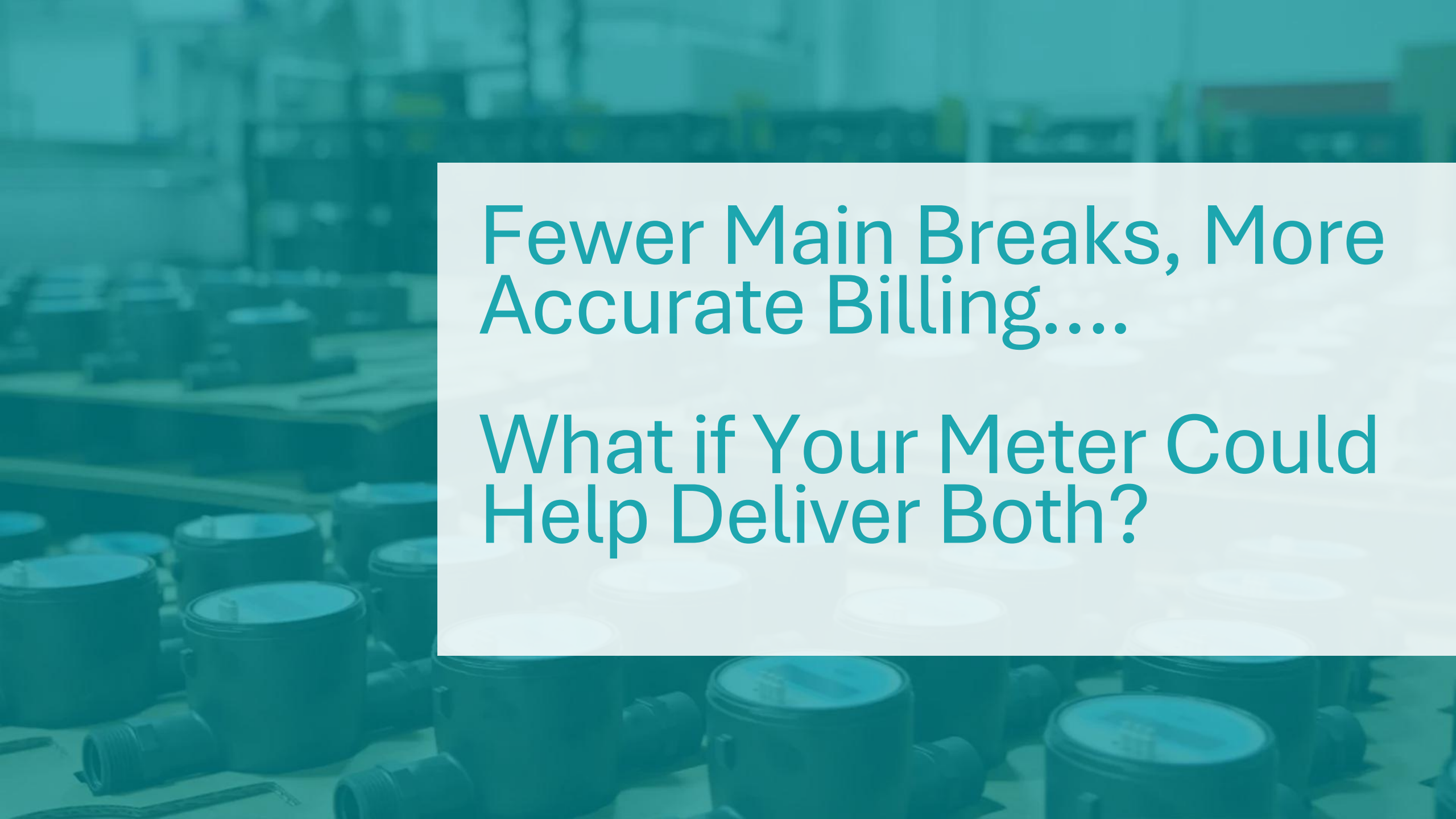

Fewer Main Breaks, More Accurate Billing....

What if Your Meter Could Help Deliver Both?

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Tracy Hernandez

Solution Manager, Kamstrup

- 15+ Years In The Water Industry
- Assisting Utilities With Acoustic Leak Detection & Active Pressure Management Across North America to reduce NRW

Connect

IT'S TIME TO KNOW

Leading the industry in reliability

35+
Years of ultrasonic experience

3M+
Meters shipped in North America

9+
Years US manufacturing

100%
Flow Bench Tested

99.6%
First Pass Yield

0.25%
Return Rate in NA

WE DON'T GUESS. WE ENGINEER.

- Intentional Design
- Quality Materials
- Zero Failure Manufacturing
- Customer Feedback
- Iterative Engineering

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2855
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NO PARKING
FIRE LANE

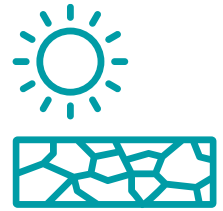
Water Loss: Why it Matters

TOTAL Water Supplied	**Authorized Consumption**	Billed Authorized Consumption	Billed Metered Consumption	
			Billed Unmetered Consumption	
		Unbilled Authorized Consumption	Unbilled Unmetered Consumption	Non-Revenue Water
			Unbilled Metered Consumption	
	Water Loss	Apparent Losses	Inaccurate or Old Meters	
			Unauthorized Consumption (Theft)	
		Real Losses	**Leaks on Distribution Water Mains**	
			Leaks on Service Connections	

Water Loss: Why It Matters

Revenue

Regulations



Drought

System Efficiency

Customer Satisfaction

Environmental Impacts

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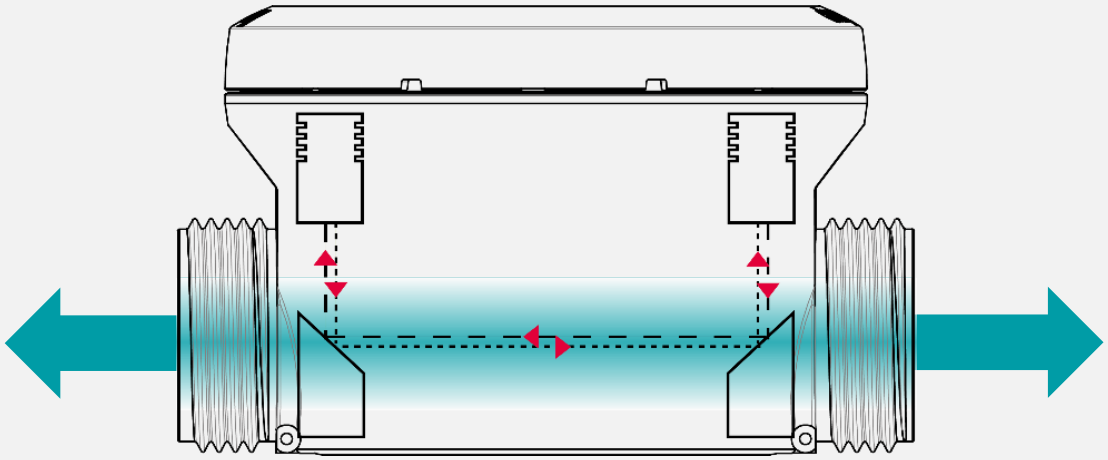
How Kamstrup ensures long-term meter accuracy

Committed to Ultrasonic since 1991



20 - year Battery Life

No moving parts to degrade of experience wear and tear

Ultrasonic measurement expertise honed over 35+ years

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IT'S TIME TO KNOW

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Imagine if your meter could hear what you can’t see…

“Breaking” News…

According to the American Water Works Association (AWWA), there are about 240,000 water main breaks in the U.S. every year.

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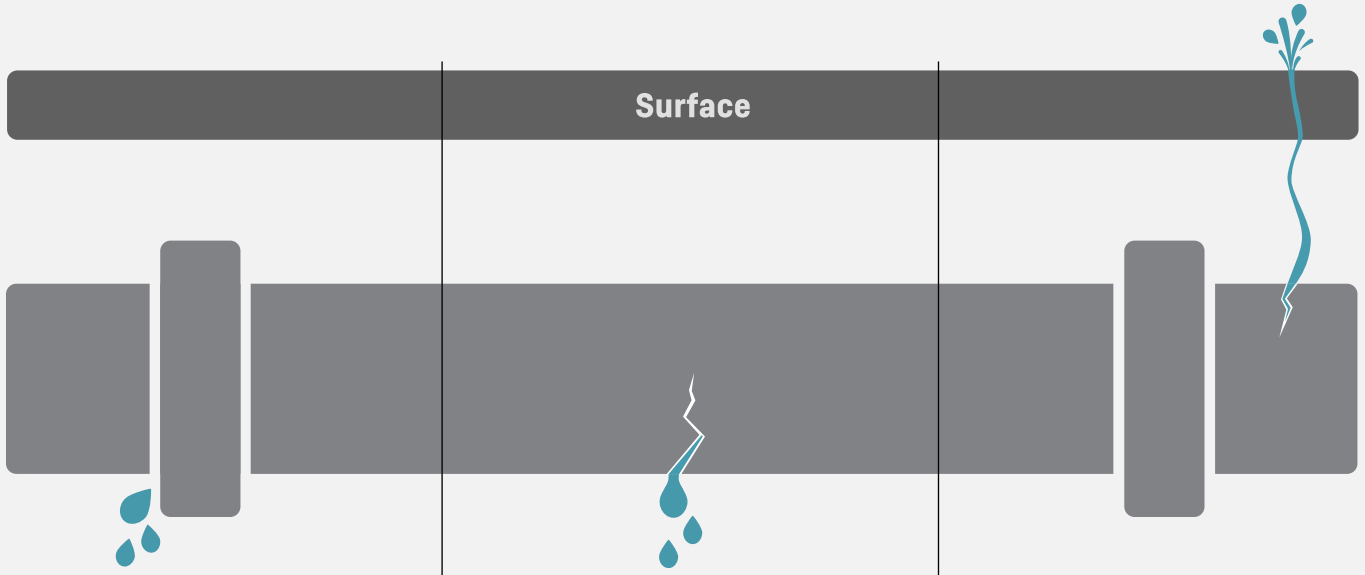
Types of Leaks

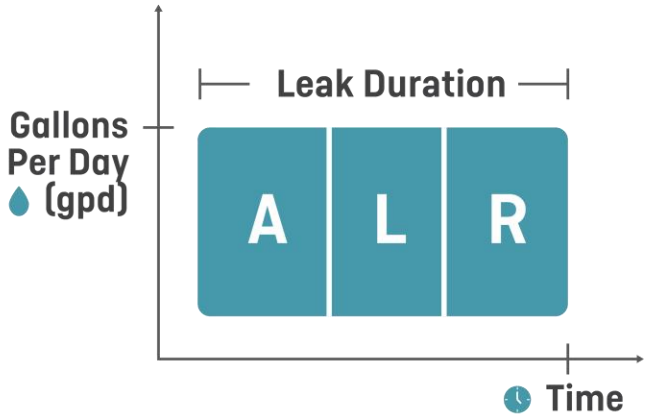


Background Leakage
Unreported and undetectable using traditional acoustic equipment.

Unreported Leakage
Often does not surface but is detectable using traditional acoustic equipment.

Reported Leakage
Often surfaces and is reported by the public or utility workers.

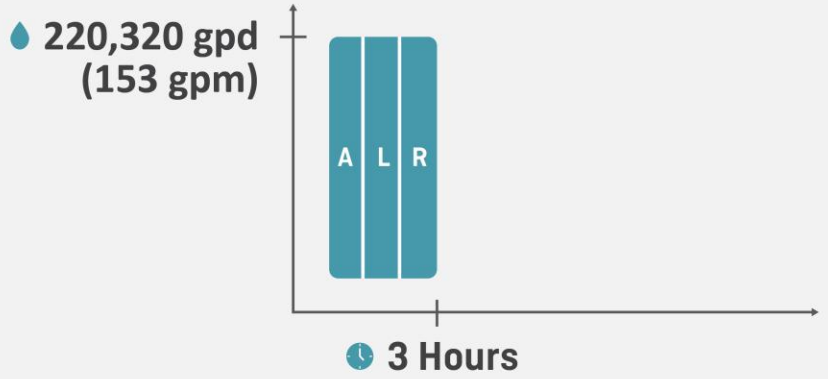
Run Time Matters



A = Awareness

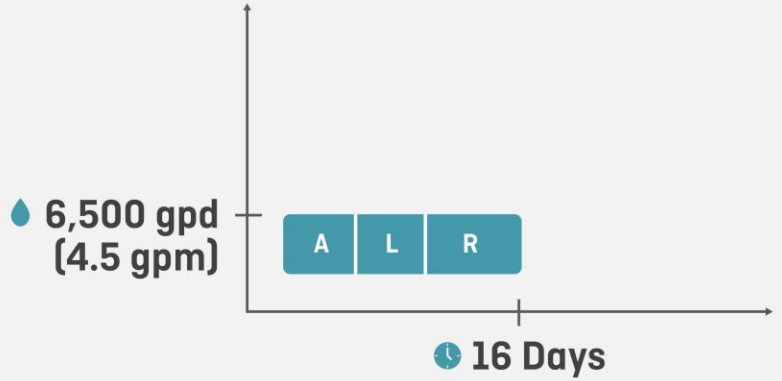
L = Location

R = Repair



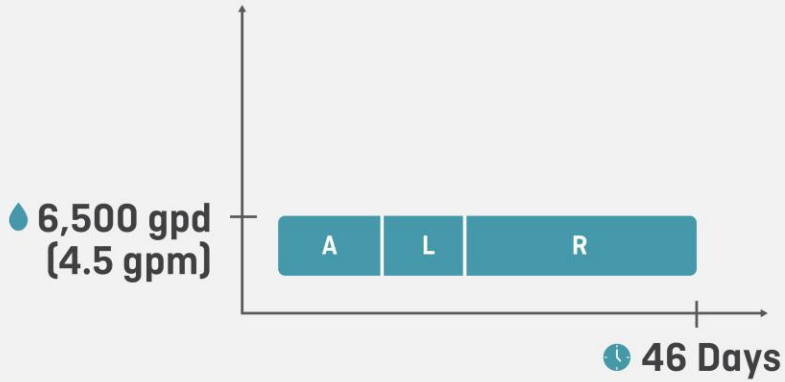
Reported Circumferential Break on 8" Main

Total Loss = 27,540 gal



Reported Utility Side Service Leak

Total Loss = 104,000 gal



Reported Customer Side Service Leak

Total Loss = 299,000 gal

The Relationship Between Sound and Water

Leak noise travels farther through the water column than it does along the pipe wall.

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Minimum Viable Survey Deployment vs Complete System Coverage

Main Line Coverage Only

50%+ of all Distribution System Leaks Occur **At or Near Service Connections.**

Ex: 5–10 x Leak Sensors Per Mile

Traditional Leak Loggers

Service & Main Line Coverage

Ex: Up to 100 x Leak Sensors Per Mile

ALD Meters

With 10x As Many Sensors Per Mile Compared To Acoustic Leak Monitoring Solutions Installed On Valves And Hydrants – **It's Almost Impossible For Leaks To Hide!**

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How Kamstrup reduces non-revenue water (NRW)

A holistic approach to tackling non-revenue water!

- Reduce water waste
- Capture additional revenue
- Notify consumers of leaks
- Prevent property damage
- Prevent main breaks
- Prevent negative PR
- Prevent water quality issues
- Prevent boil water notices
- Operational efficiencies
  - Asset management planning
  - Field workorder efficiency
  - Capital improvement planning

Gain unprecedented transparency into your buried assets!

Thank you!

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