



**CONSTRUCTION PRODUCT MARKETING**



Announcing the introduction of  
innovative inspection/assessment  
solutions for the  
water/wastewater industry  
in the United States



# History of Firms

## Construction Product Marketing

CPM was founded in 2010 and is privately held and headquartered in Phoenix, AZ. Since 2013 CPM has specialized in providing field inspection services for pipeline condition assessment projects and specialty pressure pipe rehabilitation systems and technologies. We have provided services in a variety of industries including municipal water and wastewater with national consulting firms, industrial and power companies. Projects span the United States from east to west coast and everywhere between. To date CPM has completed thousands of projects with the primary focus on pressure pipe inspection and pressure pipe rehabilitation. We strive to introduce and pioneer new technologies never before available in the United States and work diligently to evaluate the different technologies in advance of introduction to their core client base.

CPM offers a unique package of solutions by combining specialized consulting and contracting services which result in a unique perspective and understanding of how the different inspection and rehab systems interrelate. Relationships with a variety of technologies allow CPM staff to fully understand budgets associated with both inspection and rehabilitation, guiding clients to a cost effective suite of solutions for their specific issues. CPM staff include field service technicians and supervisors, project managers, as well as sales and service team members to provide support and expertise throughout every phase of an inspection project. Our staff will manage the entire process, phases, and components to deliver a successful project and deliverables to clients.

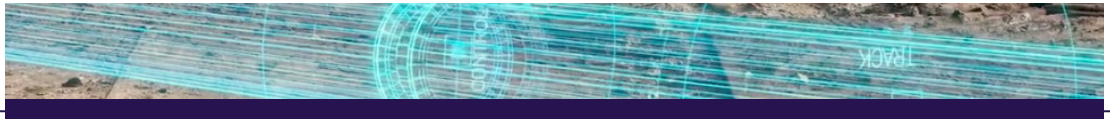
CPM takes pride in providing innovative technologies and services, unmatched in the industry, for clients looking to proactively maintain and extend the life of their critical infrastructure. Our staff is fully trained for performing work in challenging conditions including confined space, traffic right of way, industrial and mining sites, and underwater applications. We are equipped for pressurized pipe condition investigations that include metallic, concrete, PVC, FRP, PCCP, bar wrapped, and others. Pipe sizes range from 4-inch to over 100-inch. In addition to both manned entry, robotics, and in-line inspection tools for pipe inspections, CPM also provides installation, start-up, maintenance, and repair services for ancillary items associated with the pipelines including air valves, isolation valves, control valves, and water storage facilities.



Whether the needs of the client involve pressure pipe, gravity pipe, water, wastewater, air or gas, CPM has equipment and technologies to provide best in class evaluation and inspections in addition to various point repair or full rehabilitation solutions. We have the capability to support the needs of rehabilitation projects, design, product selection, installation, and start up. Our

project footprint for pipeline inspection and rehabilitation spans throughout the United States with projects completed at extreme depths up to 800-feet below grade. CPM is honored to have been selected by the innovators at Acquaint to partner in North America to deliver their unique inspection tools on projects with clients nationwide.





## Acquaint

In 2014, we began with our mission: to ensure reliable water infrastructure and services worldwide. We achieve this by developing innovative solutions that enable pipeline owners and managers to predict pipeline failure and prevent damage and water wastage. Since 2018, we have been operating from Leeuwarden, the Netherlands: the Capital of Water Technology. Here, we closely collaborate with businesses, government organizations and educational institutions to help introduce our innovative technology to the world.

This collaboration allowed Acquaint to develop a revolutionary approach to making water networks safer and more reliable. We accomplish this through a combination of innovative inspection methods and autopilot. We offer asset managers all the insights they need to be able to predict pipeline failures and set smarter management and maintenance priorities based on facts.

Our inspection techniques and data solutions don't just ensure better safety and reliability. Our approach also results in significant cost savings. Acquaint will help you gain data driven insights to plan management and maintenance smarter, and maximize your assets.



## Why Inspect?

As a manager, you want to improve your control over your water network. You'd prefer to know today where tomorrow's problems will occur.

Acquaint puts you back in the driver's seat. Our innovative inspection techniques and autopilot can help you move towards 100% predictability.

**Accurate Inspections. Comprehensive, Interactive Data. Innovative Solutions.**





# Inspection Technologies

## Acquarius

### In-line Inspection Tool

**“The results were impressive. In less than four hours, the tool had charted 1700 meters of pipeline.”**

Acquaint’s Acquarius with UT circumferential scanning sensor and Internal Mapping Unit is a multi-diverse in-line inspection tool designed to use in different types of pipes and materials. Acquarius’ sensors record the condition of many kilometres worth of transport, pressure or sewer pipelines in a single run without shut down, recording and sending measurement data to the cloud platform. Final data analysis provides current condition and remaining life span of the inspected pipe within one day, including pipes that have not been inspected. Designed to provide high-quality, accurate data in a wide range of applications, service conditions and pipeline environments. This ultraflexible, pipe friendly and reliable tool provides wall thickness measurements, ID changes, pipe geometry, joint gap width and AC leaching (degradation of asbestos cement).

### Technical Information



**DN 200**



**DN 600**



**DN 1000**

|                                  |                                |   |               |
|----------------------------------|--------------------------------|---|---------------|
| <b>Specifications</b>            | Wall thickness                 | Steel, AC, PVC, HDPE, Concrete            |               |
|                                  | Mapping XYZ                    | Accuracy < 1 meter                        |               |
|                                  | Leaching AC                    | Detectability >5% from std wall deviation |               |
|                                  | Max. Speed                     | Various 0.2 – 1 m/s                       |               |
|                                  | Max. Inspection Length         | 8/24 hours / 40 km                        |               |
|                                  | Max. operating pressure        | 10 bars (15 upon request)                 |               |
| <b>Pipeline Requirements</b>     | Min. radius bends              | 1D  |               |
|                                  | Max. bore reduction            | 30%                                       |               |
|                                  | Pressure needed for propelling | DN 200                                    | 1.5 – 2 bar   |
|                                  |                                | DN 600                                    | 0.2 – 0.5 bar |
| DN 1000                          |                                | 0.05 – 0.2 bar                            |               |
| Launching and receiving          | Possible via T- or Y-piece     |   |               |
| <b>Mechanical Specifications</b> | Length                         | DN 200                                    | 800 mm        |
|                                  |                                | DN 600                                    | 1750 mm       |
|                                  |                                | DN 1000                                   | 2500 mm       |
|                                  | Tool Diameter                  | DN 200                                    | 210 mm        |
| DN 600                           |                                | 630 mm                                    |               |
| DN 1000                          |                                | 1075 mm                                   |               |

Acquarius’s sensors assess the condition of transport, pressure and sewer pipes in a single run:  
<https://www.youtube.com/watch?v=Cyagk2W9Xv4>

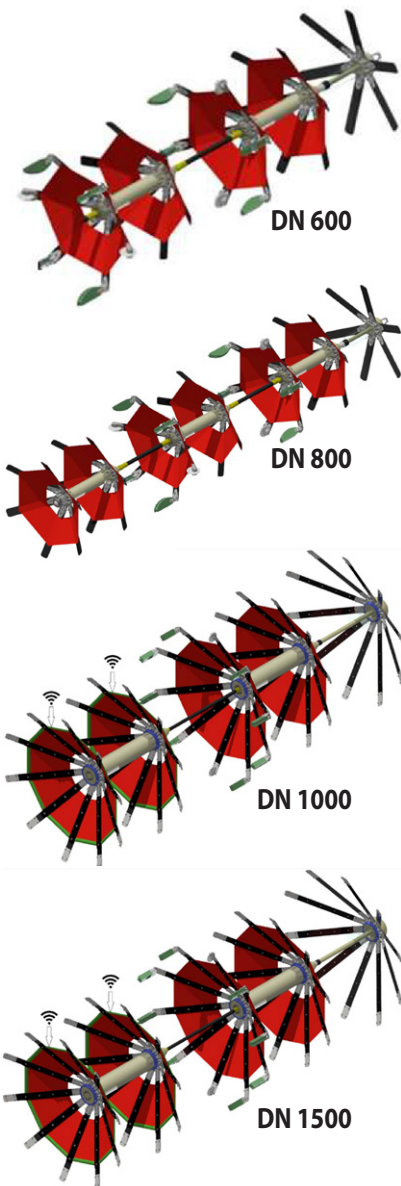
Acquarius Tech Sheet 





## Aquabrella In-line Inspection Tool

Free swimming, intelligent robot for use on potable water pipelines made of concrete, asbestos cement, cast iron, stainless steel and HPDE/PVC/GRP with a diameter  $\geq$  DN400. Due to the flexible design, Aquabrella easily passes through obstacles while its sensors monitor the condition of pressure and transport pipes over many kilometres in one single run, recording and sending measurement data to the cloud platform. It provides a complete condition assessment measuring wall thickness degradation, location, corrosion, leaching, and sulphate attack. Final data analysis provides current condition and remaining life span of the inspected pipe within one day, including pipes that have not been inspected.



### Technical Information

|                                  |                         |   |
|----------------------------------|-------------------------|---|
| <b>Specifications</b>            | Wall thickness          | Steel, AC, PCCP, PVC, Cast Iron, HDPE   |
|                                  | Mapping XYZ             | Accuracy < 1 meter  |
|                                  | Leaching AC             | Detectability >1% from std wall deviation   |
|                                  | Max. Inspection Speed   | Various 0.2 – 1 m/s   |
|                                  | Max. Inspection Length  | 24 hours / 40km   |
|                                  | Max. operating pressure | 10 bars   |
| <b>Pipeline Requirements</b>     | Min. radius bends       | >1.5D   |
|                                  | Max. bore reduction     | DN 600 50% of Nom ID<br>DN 800 60%<br>DN 1000 70%<br>DN 1500 75%  |
|                                  | Max. flow needed        | 0.5 m/s + 10%   |
|                                  | Launching and receiving | Possible via T- or Y-piece  |
| <b>Mechanical Specifications</b> | Length                  | DN 600 ~4100 mm (unfolded 3900mm)<br>DN 800 3700 mm<br>DN 1000 ~4100 mm (unfolded 3900mm)<br>DN 1500 ~4100 mm (unfolded 3900mm) |
|                                  | Tool Diameter           | DN 600 600 mm<br>DN 800 800 mm<br>DN 1100 - 250 mm<br>DN 1500 - 250 mm  |

**Aquabrella Work Plan**





## PipeScanner

Detects corrosion, leaching, H2S degradation (AC) and creates comprehensive, interactive data on pipeline condition. Specially developed to inspect pipelines in a non-destructive way from the outside with little disturbance. For use on steel, cast iron or asbestos cement pipe wall thickness. The PipeScanner is fully equipped with a cloud platform for secure transfer of data. A fast, easy and accurate capture of pipeline condition.

### Benefits:

- Exceptional on asbestos cement for determining remaining structural density
- Ability to maximize each scan to create value
- Measures pipe wall thickness with pipeline in-service
- Scientifically validated



“Thanks to data analysis we can predict this pipeline’s remaining lifetime.  
What’s more, we can apply the data to other pipelines and conduct risk assessments.”



### Technical Information

| Specifications                | Material and Wall Thickness Range | AC > 18 mm<br>HDPE  | AC 5-23 mm<br>Ductile Iron<br>16 - 29 mm | Ductile Iron<br>5 - 20 mm<br>Gray Cast Iron<br>16 - 29 mm<br>Gray Cast Iron<br>5 - 20 mm | Steel |
|-------------------------------|-----------------------------------|---|--|--|-------|
| Accuracy                      | Wall Thickness                    | AC: ±0.1 mm, Steel: ±0.09 mm, Ductile Iron: ±0.14 mm<br>Gray Cast Iron: ±0.15 mm, HDPE: ±0.07 mm, PVC: ±0.07 mm |  |  |       |
| Leaching AC/<br>Acidic Attack |                                   | Detectability > 1% from std wall deviation  |  |  |       |
| Max. Speed                    |                                   | 30 minutes per site   |  |  |       |
| Min. Diameter                 |                                   | 100 mm (4 inches)   |  |  |       |
| Handheld Size                 |                                   | 200 x 100 x 100 mm  |  |  |       |
| Recorder Size                 |                                   | 300 x 200 x 50 mm   |  |  |       |
| Tool weight                   |                                   | <1 kg   |  |  |       |
| Clear Water                   |                                   | 3 liters per scan   |  |  |       |

PipeScanner performs a comprehensive pipeline condition assessment:  
<https://www.youtube.com/watch?v=X11kIG-F9Tk>