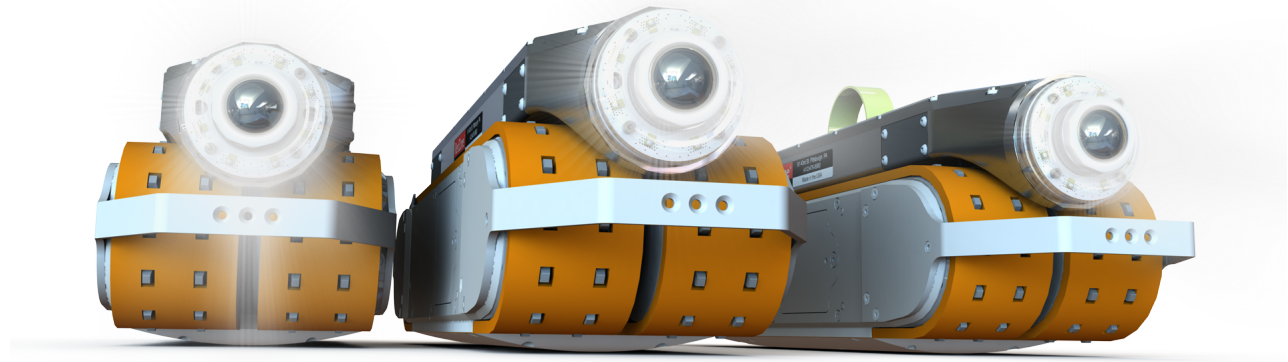


SOLO® Pipeline Inspection Robot



The small robot that has a huge impact

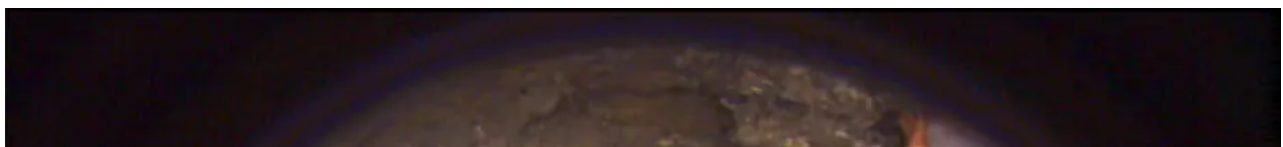
The SOLO® pipeline inspection robot is the world's first truly unmanned robot for **small-diameter pipe inspection** and has radically changed the way collection system managers approach operations and management. **Typical daily production rates far outpace conventional methods** allowing you to inspect accurately and efficiently.

With SOLO®, you never miss a defect. Field operator variability is eliminated as a factor influencing data quality. Video captured by SOLO® allows the viewer to **remotely pan, tilt, and zoom an entire pipe segment 360 degrees**.

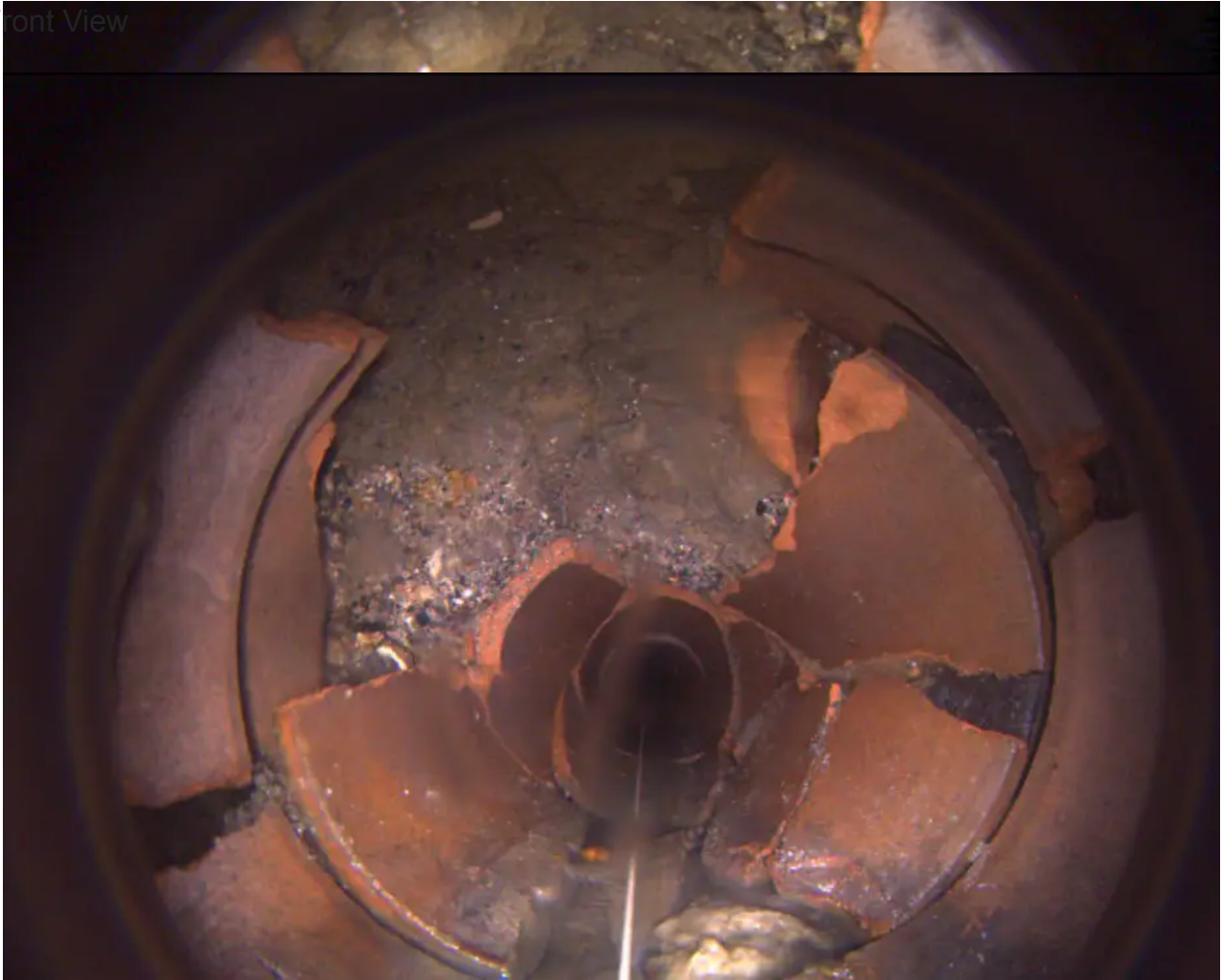
See every angle of your pipe's interior.

Pano-spheric cameras offer 360-degree views

With the Solo® pipeline inspection robot, front and rear pano-spheric camera views are stitched together to create a 360-degree video of the interior of the pipe, eliminating the need for manipulating the camera while in the field and shortening deployment times.



Front View



Rear View



Why SOLO®?

The efficient and cost-effective, autonomous crawler for **small-diameter pipe inspection**.

1. Smart data

Get clear, robust video and **imagery with pan, tilt, zoom capability** to help you make your most important decisions.

2. Speed

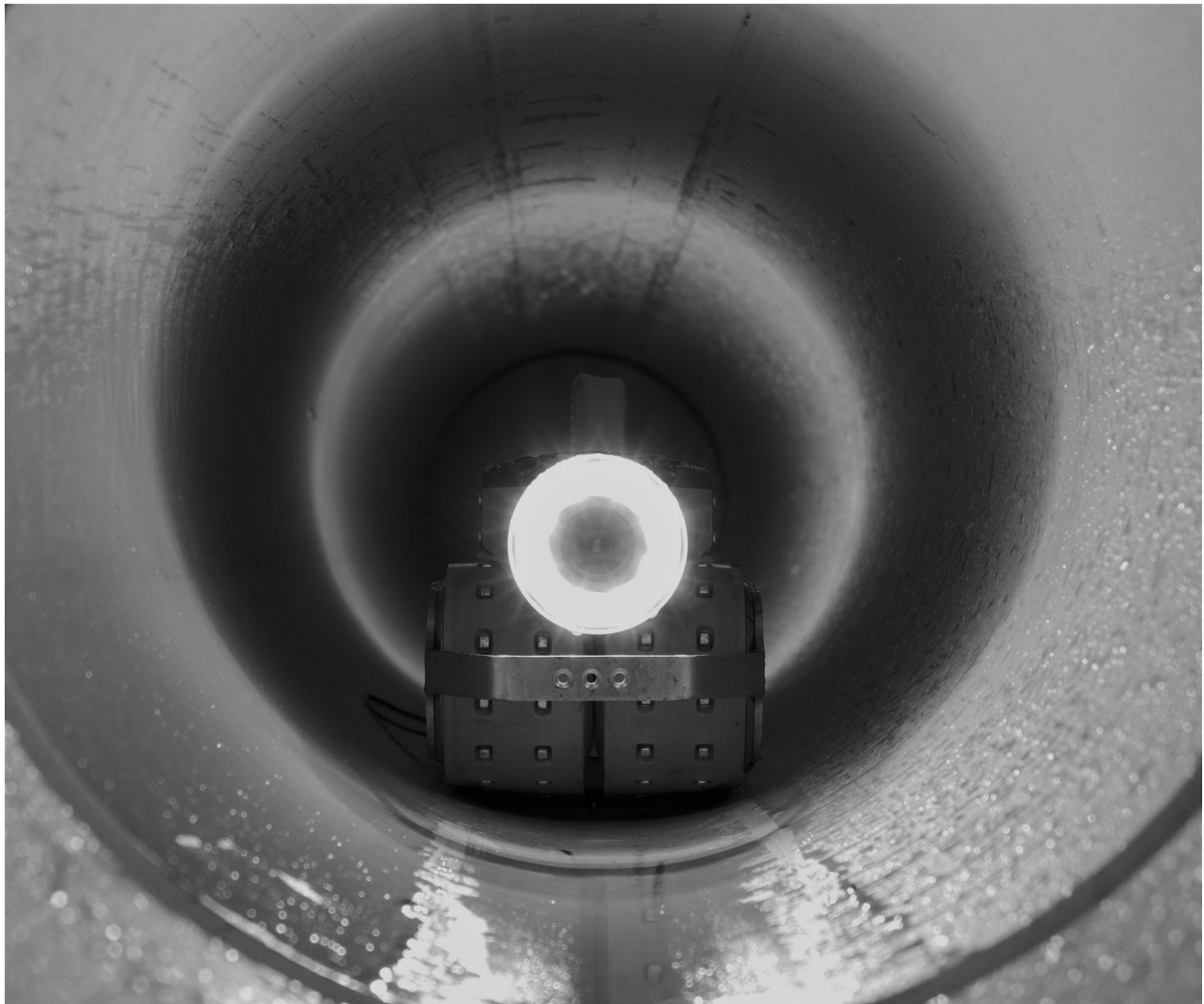
Need to gather miles of small-diameter pipe data quickly and efficiently without loss of quality? With deployments of 10-15 minutes, SOLO® decreases the requirement for traffic management and community disruption. On average, SOLO® can gather **4,500 feet of data per day, per deployment crew, when utilizing multiple units.**

3. Portability

Compact and easy to deploy **in any location accessible by an operator on foot**, SOLO® allows access to manholes that traditional, vehicle-based CCTV can not. SOLO®'s slim, portable build also means **less manpower to prep and deploy**, reducing your Carbon Footprint in the process.

4. Reliability

Launched in 2009, SOLO® not only changed the industry, it continues to set the standard for **small-diameter pipe inspection**. With over a decade of experience, SOLO® delivers dependable and trustworthy inspection data with **6 times the inspection throughput versus conventional CCTV**.

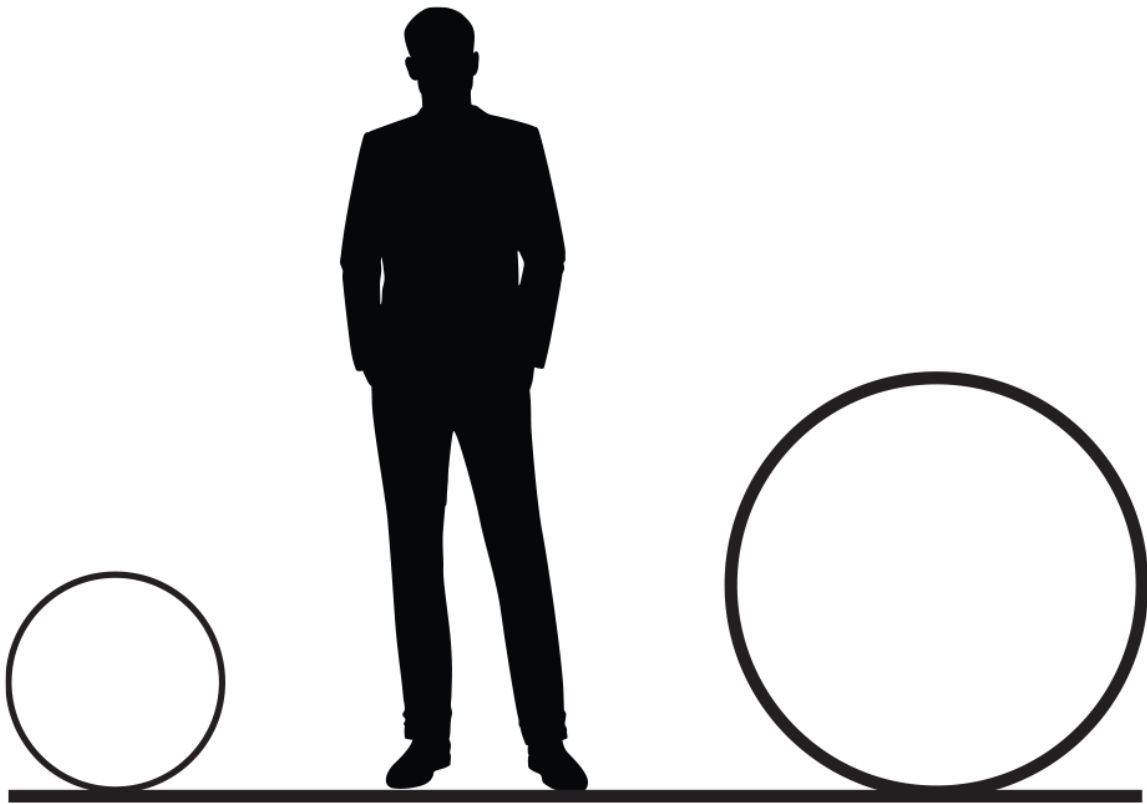


Rapid Deployment and Shortened Timelines with SOLO® Squads

The average SOLO® pipeline inspection robot deployment is 10-15 minutes from arrival on site to closing the manhole once the unit has been launched. Once launched, SOLO® autonomously traverses the pipeline using on board sensors ensure that the unit can safely progress.

If a blockage or obstruction is found, the unit will make three attempts to get past prior to returning to the launch site. Upon reaching the end of the pipe, SOLO® will return to the original site for collection and redeployment.

SOLO® can also be launched in squads, of up to 4, in order to gather footage more efficiently.



Pipe Size

8in – 12in (200mm – 300mm)



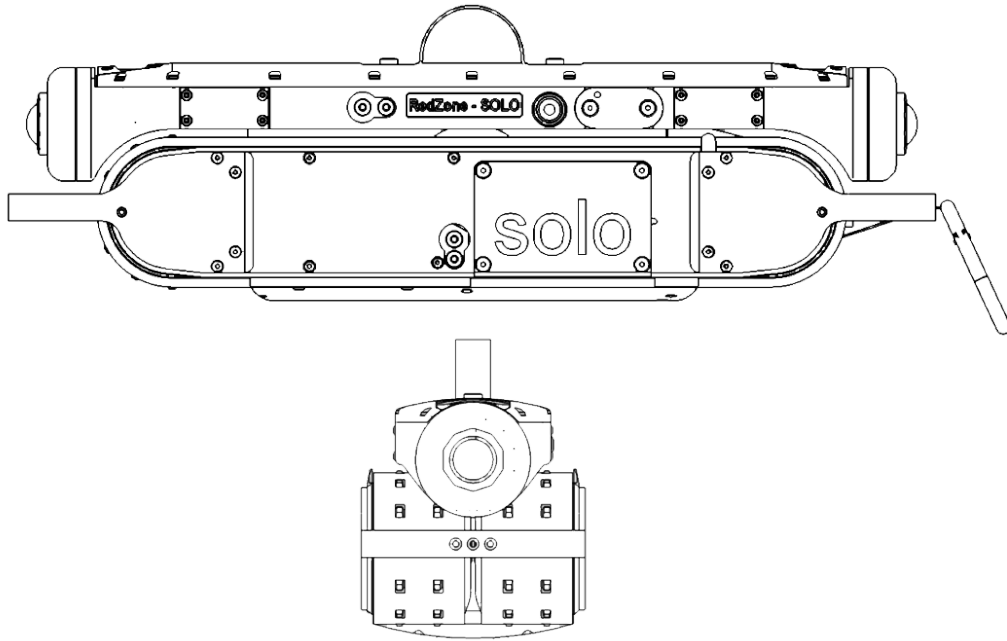
Water Level

0 – 1/4



Minimum Access

8in (200mm)



▼ Sensors

CCTV – Virtual pan, tilt, and zoom

▼ Parameters

Transportation: Tracked platform

Pipe Size: 8-12 in (200-300 mm)

Min. Flow: No flow required (Tracked platform)

WiFi Connectivity: At manhole

▼ Deliverables

NASSCO PACP/MACP, WR_c, WSSA