



**SPiDER**  
Spherical Imager, Digitally Enhanced Rendering

# 3D Wireless Manhole Scanning

SPiDER is a revolutionary portable manhole scanning technology

**ACCURACY**  
1 to 5 mm

**SPEED**  
10' (3 m) / min

**WEIGHT**  
30 lbs (14 kg)

**CABLE**  
none



> Tablet Controlled



> Measurable Color Point Cloud



> Wireless Connection

# SPiDER Manhole Scanner



## Features & Benefits

- **Measurable Data**  
SPiDER collects millions of three-dimensional (3D) points during each manhole scan that provides engineering and survey quality information on manhole geometry and condition. Output can be used for structural assessment, pre and post rehabilitation analysis, hydrological surveys, as well as general condition assessment.
- **Portability**  
SPiDER weighs less than 30 pounds (14 kg) and can be hand carried to difficult to access sites. Additionally, SPiDER does not require a truck or data/power cable for operational use. Scanning data is recorded on the unit.
- **Tetherless Positioning**  
SPiDER can calculate its position in the manhole shaft by using its internal sensor data to measure its incremental motion. This technology frees manhole scanning from problems associated with inaccurate, poorly calibrated cable counters and poorly managed cables.

- **Tablet Controlled**  
SPiDER is operated with a tablet which controls the scanner's cameras and lights.
- **3D, Textured Point Clouds**  
SPiDER provides renderings of manhole geometry to provide three dimensional visualization that can be imported into a wide range of 3D viewers.
- **File Format Deliverables**
  - 3D MPEG Video (.MPG)
  - Point Cloud (.PLY) which can be converted to:
    - Surface Model (.STL)
    - CAD Model (.DXF)
    - Virtual Model (.OBJ)
  - MACP Report using your preferred NASSCO Certified Software
- **Live Video**  
SPiDER provides a 190 degree field-of-view live video stream - making it an ideal tool for Infiltration and Inflow (I&I) studies which depend on live video to detect moving water.



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> Live Video



> Portability



> Virtual Tether