SROD
ROBOTICS

S3831E

Silvertip Shark Robot

- √ *Self-propelled Thrusters*
- √ *Ultra-high Water Level Detection*
- √ *Capable of Floating and Diving*
- √ *DN500/20"-DN6000/240"*



Product Overview

Silvertip Shark is a battery-powered sonar system designed for high-water-level sewer mains above DN500/20". The system features a propeller-driven design with integrated HD cameras. It requires no dewatering or diversion and uses sonar technology to easily inspect high-water-level pipelines, culverts, accurately identifying defects like cracks, deformations, deposits, and intrusions. The system automatically calculates sediment volumes and generates professional inspection reports.



Main Parameters

Silvertip Shark Robot Specification Sheet	
Applicable Diameter	DN500/20"~DN6000/240"
Robot Dimensions	600mm/23.6"×424mm/16.7"×251mm/9.9"
Robot Weight	20kg/44 lbs
Travel Speed	Underwater: 0.8m/s (2.6 ft/s)
Thrusters	2 horizontal, 2 vertical
Cameras	Surface: Front&rear 2MP cameras with 2×2W lights each. Underwater: Front 2MP camera with 2×2W lights
Sonar	Frequency: 2.25 MHz, Cone Angle: 1.4°, Range: 0.25M/0.82'~6M/20', 1 rotation per second
Protection Rating	IP68, Waterproof Depth: 20M/65.6'
Cable Specification	Standard 200M/656' neutrally buoyant cable (customizable 1000M/3281', fiber optic cable for lengths over 500M/1640')
Battery Life	High speed: 2 hours, Low speed: 4 hours
Depth Lock	Preset depth underwater cruising
Directional Lock	Preset directional cruising

Features

Self-propelled with Versatile Movement Capabilities

Capable of forward, reverse, turning, surfacing, and diving; industry-first multiple movement modes with seamless switching, enabling intelligent operation in partially surcharged, fully surcharged conditions for superior control and maneuverability.

High-precision Sonar for Accurate Scanning

Equipped with a high-precision centimeter-level cross-sectional circular sonar system, featuring real-time adjustable power, fast scanning, and high measurement accuracy. It provides multi-angle displays of pipe diameter, wall condition, deposit height, and hard deposit thickness at the sewer main bottom.

Dual-camera System for Enhanced Inspection

Front and rear full HD cameras, paired with high-brightness LEDs, provide real-time HD images and video in dark environments. These are transmitted back to the control terminal for analysis and recording, offering crucial reference for subsequent sewer asset maintenance and repairs.

Depth-controlled Cruising Inspection

Equipped with advanced depth, ranging, and orientation sensors, combined with control algorithms, to achieve depth-controlled inspection functionality, making the system smarter and more efficient.

Easier Long-distance Inspection

Standard 200M/656' cable, customizable up to 1000M/3281'. The cable reel features automatic cable winding and unwinding, making it easy to operate and enabling efficient long-distance high-water-level sewer main inspections.

Portable Tablet, One-click Report Generation

Tablet-based operation for ease and portability. The inspection report system clearly displays pipeline water levels, sediment thickness, and volume, with one-click generation of professional reports, providing critical data for sewer main safety and maintenance management.

Use Cases



Municipal Sanitary Sewer Main Inspection



Stormwater Sewer Culvert Inspection



Underground Detention Ponds and Tank Inspection