



X5-HR4 All-Terrain Pipeline Inspection Robot

Advanced Detection for Challenging Pipeline Environments



Why Choose X5-HR4?



The X5-HR4 All-Terrain Pipeline Robot is specifically engineered for challenging environments where conventional CCTV inspection systems cannot operate effectively. Comprising a helical propulsion crawler, cable reel, and control terminal, this system excels in DN600mm pipelines with sediment accumulation and high water levels. Equipped with a 360° high-definition camera, it provides comprehensive internal pipeline assessment, making it ideal for municipal drainage pipelines, culverts, underground channels, and river course inspections.

Performance

- Helical propulsion for superior maneuverability in sediment and high water
- All-terrain operation beyond traditional CCTV robot limits
- 360° panoramic imaging for full pipeline visibility
- Extended deployment capacity in challenging conditions

Intelligence

- HD 360° camera with panoramic coverage
- Real-time monitoring and recording
- Adaptive navigation through sediment and obstacles
- Synchronized data collection and analysis

Reliability

- Robust build for demanding conditions
- Continuous operation in sediment-rich and high-water environments
- Optimized for DN600mm+ pipelines
- High resistance to sediment-filled conditions

Versatility

- Multiple applications: drainage, culverts, conduits, rivers
- Adaptive to various pipeline conditions
- Comprehensive inspection in challenging environments

Key Features & Components



Control System

- **Operation Interface:** Integrated control terminal with real-time monitoring
- **Display Capability:** Live HD video feed with panoramic viewing
- **Data Recording:** Simultaneous video capture and storage
- **Control Functions:** Propulsion control, camera operation, and system monitoring
- **Compatibility:** Designed for seamless integration with helical propulsion system



Crawler

- **Propulsion Mechanism:** Helical drive system for sediment navigation
- **Minimum Pipeline Size:** DN600mm application
- **Terrain Capability:** Operates in sediment and high-water conditions
- **Maneuverability:** Enhanced navigation through challenging environments
- **Durability:** Robust construction for extended operation in difficult conditions



Camera

- **Imaging Technology:** 360° high-definition panoramic camera
- **Coverage:** Comprehensive internal pipeline assessment
- **Visualization:** Complete internal pipeline visualization
- **Adaptability:** Suitable for various pipeline conditions and environments



Cable Reel

- **Cable Management:** Integrated cable reel for extended deployment
- **Operation Range:** Extended reach for comprehensive pipeline inspection
- **Reliability:** Consistent performance in challenging conditions
- **Durability:** Designed for continuous operation in demanding environments

Conquering Challenging Environments With Advanced All-Terrain Capability



Main Configuration Including:

- Crawler
- Camera
- Cable Reel
- Control System