

Overwhelming Technology: The New Standard in Pipeline Repair

ROBOCUT-S

Sewer Cutting & Milling Robot System



- Equipped with FHD Tilt Camera (Up/Down)
- Compatible with Pneumatic Breaker Head
- High-Speed Motor: 11,000 RPM
(Compatible with Electric/Pneumatic Grinders)
- Applicable Pipe Diameter: 300–600mm | Max Range: 120m
- Removal of tree roots, mortar, and protruding pipes inside pipelines
- Air & Water Jet Camera Wiping & Cleaning Function
- Lateral connection opening (reinstatement) for Trenchless Rehabilitation
- Versatile Bit Compatibility: Spherical, Disc, Mushroom, and Piercing Pin Types

01 Electric/Pneumatic Compatible System

Uninterrupted Flexibility in Any Field : Electric/Pneumatic Compatibility System

- Incorporates an electric and pneumatic compatibility system
- Selects optimized power according to the working environment
- Enables the removal of obstructions and the repair of sewer pipes through powerful cutting capabilities.

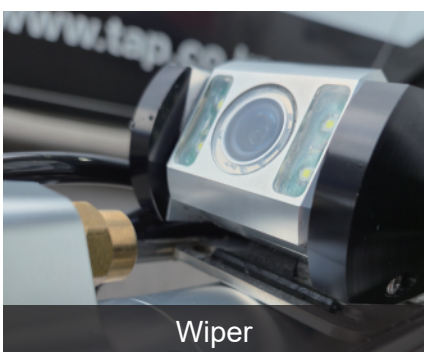


Obstacle Removal Tool: Compatibility & Performance				
Category	1st	2nd	3rd	Avg.
Pneumatic → Electric	1m 01s	1m 06s	1m 05s	1m 03s
Electric → Pneumatic	1m 13s	1m 24s	1m 12s	1m 16s

02 Equipped with a remote camera lens cleaning function

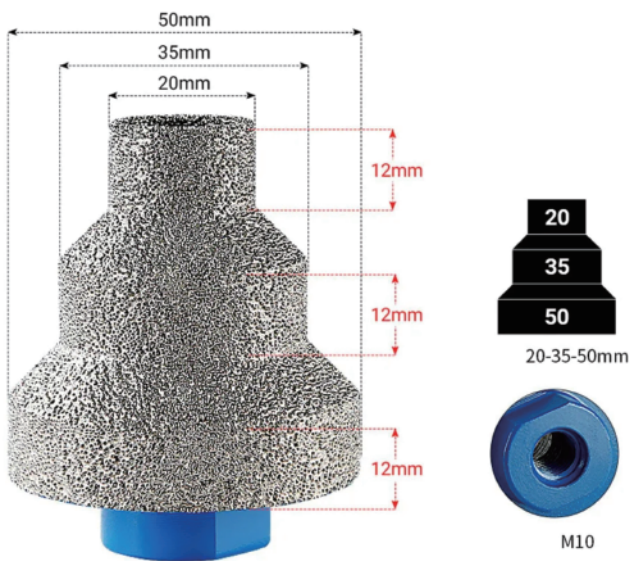
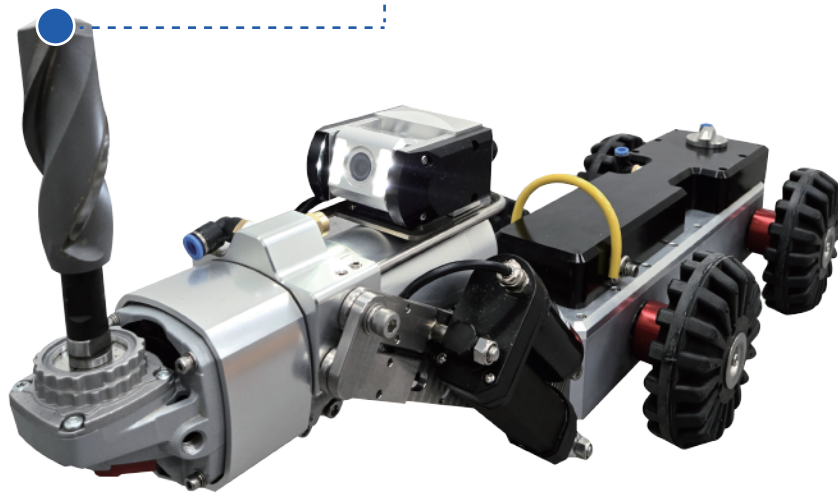
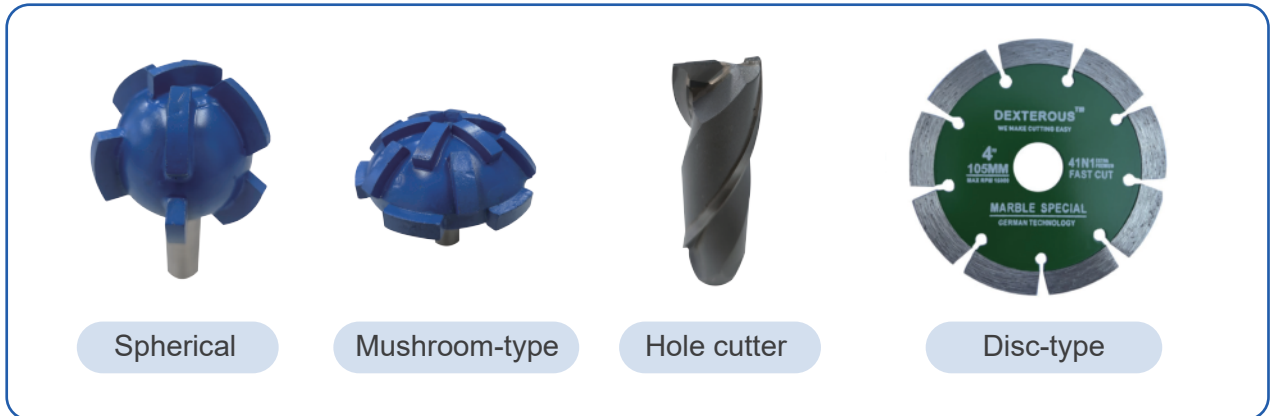
Cleans the camera lens by spraying air and water simultaneously

- Can remove all foreign matter from the lens
- Equipped with a wiper function to keep the lens area consistently clean



03 Compatible with various cutting bits

In-house Manufacturing and Sales of Cutting Bits



Diamond Vacuum Brazed Step Hole Saw



Diamond Vacuum Brazed Core Drill Bit

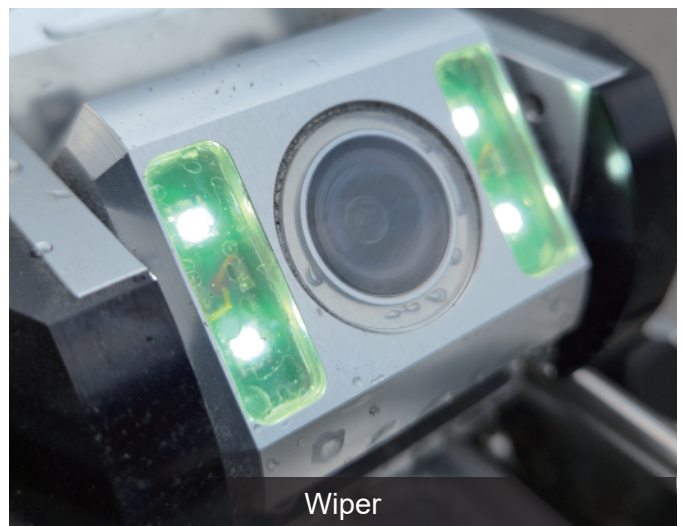
01 Tilt Camera Head

- Remote-controlled motorized vertical tilt adjustment ($\pm 120^\circ$)
- Integrated White LED lighting (4 x 3W [685 Lumens])
- Utilizes German-made (Faulhaber/Maxon) pan-tilt motors



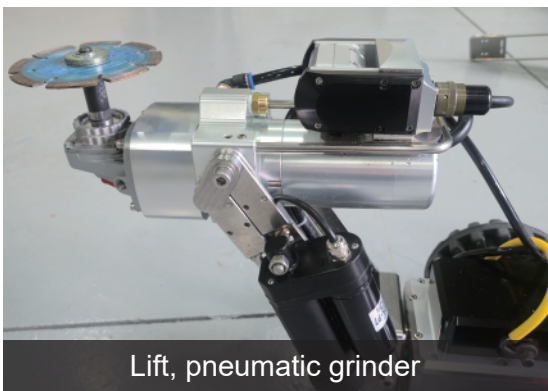
02 Lens Cleaning

- If there is foreign matter on the camera lens, clean it first with air water
- In the second step, use the wiper to maintain a clean camera lens

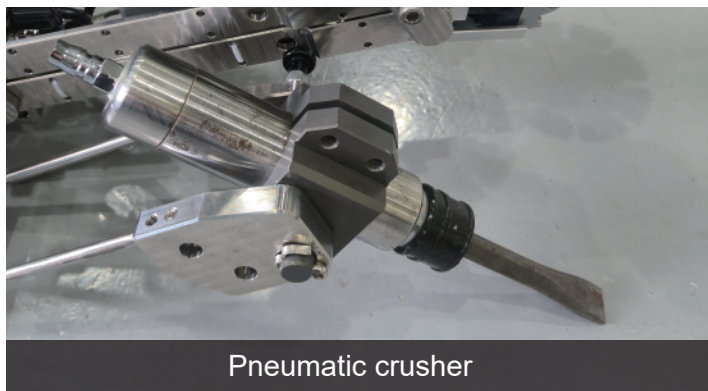


03 Grinder Lift (Electric/Pneumatic, Modular Exchange Type)

- Fan Rotation Range : 350-degree / Features German-made motors (Faulhaber/Maxon)
- Rotational brake-lock function
- Electric Grinder (Features a Bosch electric motor head / 220 VAC / 60 Hz / Maximum Rotation Speed: 11,000 rpm / Grinding spindle thread: M10)
- Pneumatic Air Hammer (Straight-type configuration / Impact rate: 4,800 blows/min at 90 psi)
- Vertical Lift: Adjustable up to 200 mm (Electric cylinder type)



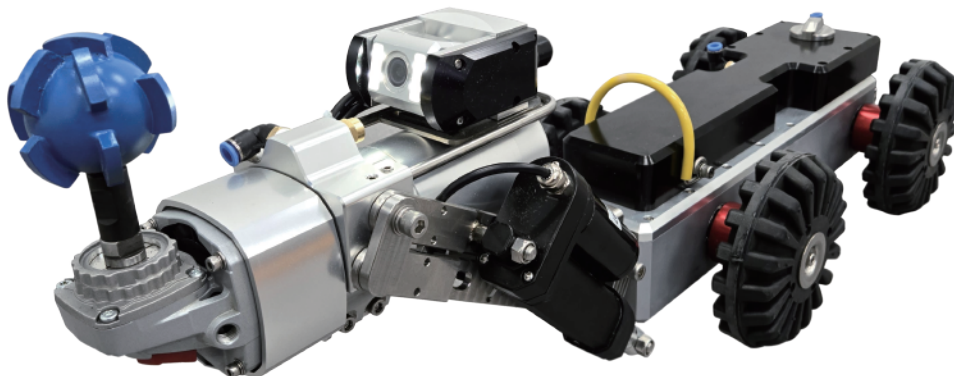
Lift, pneumatic grinder



Pneumatic crusher

04 Crawler

- Motor: German-made (Faulhaber) motor (Rotational Speed: 6,700 RPM / Torque: 10 Nm)
- Speed: Adjustable 0–100% (Max. travel speed: 30 m/min)
At Rated Voltage (48V): 5,800 RPM / At Overvoltage (64V): 8,000 RPM
- Input Power: DC 65V
- Driving direction: Forward/Reverse
- Travel Distance: Up to 150m
- Dimensions: W140 x L950 x H150 mm (excluding wheels)



05 Wheel Options for Various Pipe Diameters

- Compatible with various pipe diameters through two standard wheel options and two extension wheel options
- Wheel sizes corresponding to specific pipe diameters:



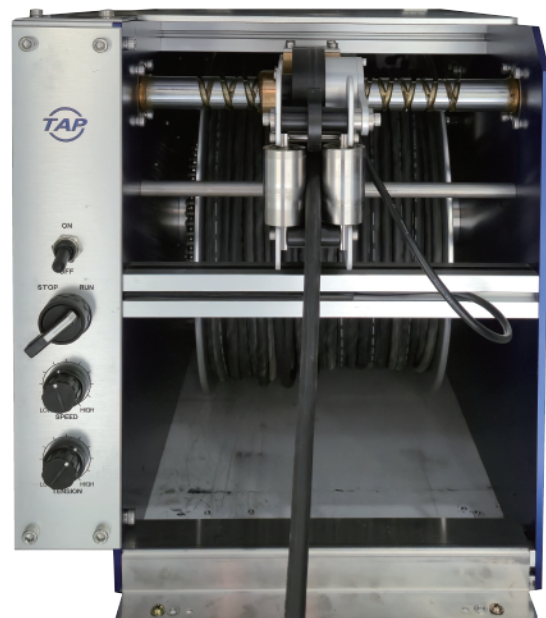
Wheel 200D: Pipe Dia. 250–300 mm



Wheel 280D: Pipe Dia. 400–600 mm

06 Cables and Motorized Cable Reels

- Standard 150-meter cable
- Cable Diameter: Ø8.5mm (Thin and lightweight cable boasting excellent tensile strength (Kevlar-reinforced))
- Aluminum shielding structure for electromagnetic interference (EMI) protection
- Integrated high-tensile steel wire core to prevent breakage (Kevlar structure)
- Motorized cable retraction function
- Synchronized winding function during reverse operation
- Equipped with an encoder sensor for travel distance measurement
- Automatic cable alignment function during retraction
- User-friendly, multi-stage cable locking mechanism
- Adjustable cable winding speed and tension
- Equipped with wheels and a multi-stage telescopic handle for enhanced portability
- Designed with a detachable cable structure allowing user cable replacement
- Dimensions: W484 × D557 × H406 mm
- Weight: 19.4 kg



07 ROBOCUT S Dedicated Controller (Includes Subtiter and Recording Device)

- Monitor + Subtitle Generator + Recording Device
- 19-inch LED Monitor
- Functions for system power supply, crawler drive control, camera pan/tilt operation, lighting brightness adjustment, and lift height control
- Keyboard for subtitle generation
- Switchable display modes: Integrated control interface (featuring embedded video feed) and full-screen video view
- Real-time subtitle insertion into the live inspection feed (displaying essential data such as date, time, distance meter, manhole section markers, pipe material, pipe diameter, drainage method, and live pipe status)
- On-screen insertion of detailed information regarding anomalies detected during inspection (based on the classification criteria for various anomalies outlined in the Ministry of Environment's *Sewage Pipe Inspection Manual*)
- Additional custom subtitles (featuring built-in subtitle editing and saving functions)
- On-screen insertion of project overview and start-of-work details (replaces traditional whiteboard recording with digital methods)
- Built-in digital recording software (MP4 format; supports Record, Pause, Stop, Load, Fast Forward, Rewind, and Playback modes)
- Data storage via external USB hard drive or memory stick
- Dimensions: W450 × D550 × H140 mm
- Weight: 16.6 kg



08 Small size Robot system (Model Robocut S Jr.)

- Applicable Pipe Diameter: 150 – 250 mm
- Dimensions: W85 x L1000 x H106
- Weight: 230 kg
- Motor: German-made (Faulhaber / Maxon) motor adopted
- Pneumatic / Electric compatible
- Monitoring camera not included

