

EXPERIENCE THE POWER OF WATER

THE ULTIMATE TOOL FOR
PIPELINE MAINTENANCE



SEWER
ROBOTICS

POWERFUL SEWER REHABILITATION TECHNOLOGIES & SOLUTIONS

Sewer Robotics is the proud manufacturer of this modular, single system solution that features a multi-functional crawler and various job-specific modules for underground pipe inspection, cleaning, cutting and rehabilitation.

One system, highly effective and cost-efficient, removing root intrusions, cutting protruding taps, reinstating lateral connections, installing spot repair systems and removing heavy grease, overpoured concrete and years of calcium and scale build-up from 150 – 1000mm (6-40") underground pipes and service lateral connections.

This brochure will introduce the different applications, system configurations and components of the Sewer Robotics' system.

SEWER
ROBOTICS

SEWERROBOTICS	+31 174 289 475	[TEL]
ABC-Westland 197	+1 503 504 8474	[USA]
2685 DB, Poeldijk	www.sewerrobotics.com	
the Netherlands	info@sewerrobotics.com	

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CLEANING DATA DRIVEN ASSET MANAGEMENT



SCAN FOR VIDEO

REVOLUTIONIZING ASSET MANAGEMENT

Municipalities and service contractors face mounting challenges, from aging infrastructure to limited resources. Sewer Robotics offers a new approach to asset management by integrating advanced technologies that optimize pipeline maintenance and reduce costs.



SMART CLEANING, SMARTER DECISIONS (P80)

New technologies enable data collection to integrate seamlessly into the pipe cleaning process. Our C70 video nozzle captures HD video during cleaning, can be analyzed manually or by AI software to generate actionable reports on pipe conditions.

This allows municipalities to focus resources on pipes that need attention, cutting unnecessary costs.

Around 70% of sewer lines typically don't need repairs, making data-driven maintenance highly cost-effective. And, by leveraging cleaning data, municipalities can prioritize the most urgent repairs, saving time and budget.

VERSATILE SOLUTIONS FOR EVERY NEED

With pipe defects clear and prioritized, Sewer Robotics multi-functional robot system with a modular crawler and various job-specific modules that are designed to handle a variety of pipeline tasks:

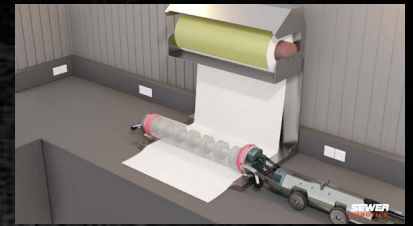
WATER JET CUTTING (P10)

Precision high-pressure water jets applied from a robot removes solid obstructions and settled deposits fast and without damaging pipes. These precise water jet remove roots, grease, grout, cement, mineral deposits and concrete.



UVP SPOT REPAIR (P68)

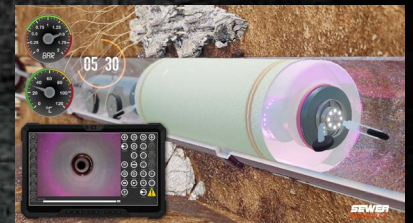
The UVP125 packer utilizes Ultra Violet light to cure a resin impregnated glass fibre liner in 8 minutes. The liner is pre-impregnated and supplied on a roll to eliminate on-site mixing for clean and rapid pipeline repairs.



LATERAL REINSTATEMENT CUTTING (P20)

The powerful Sewer Robotics' cutters easily trims intruding taps and reinstates laterals after CIPP relining.

Their cutting power and precise controls ensure fast reinstatement and smooth cuts.

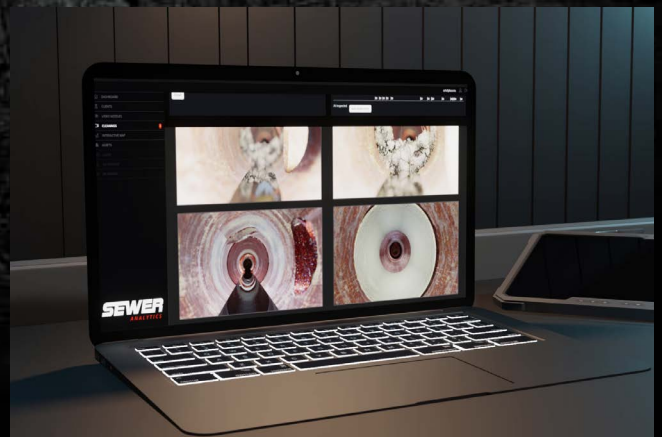


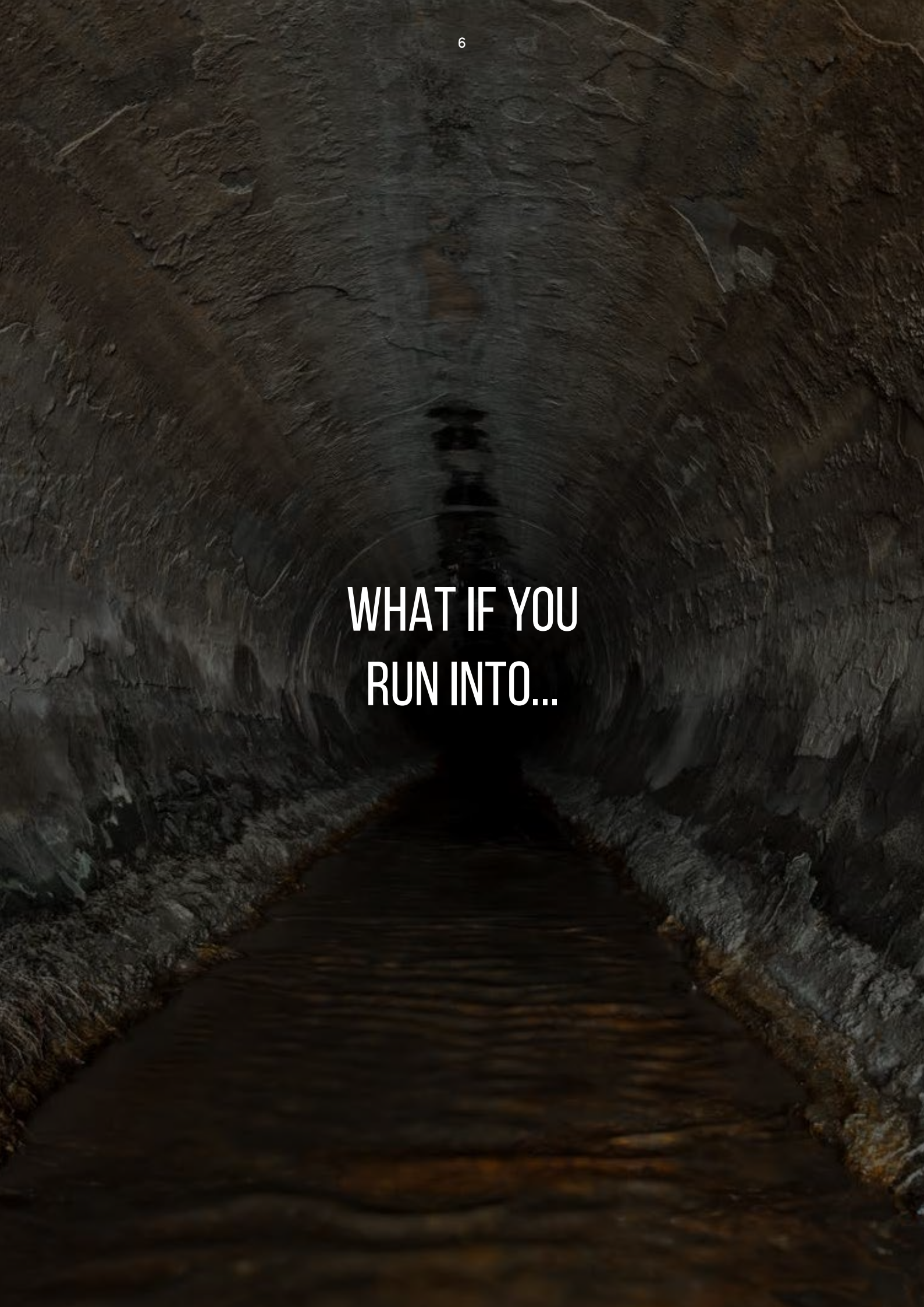
These maintenance and rehabilitation technologies can all be done with the same robot system, from a single truck and by a single crew.

CONCLUSION

With smart video cleaning nozzles, Artificial Intelligence-driven analysis, and a multi-functional robotic system, Sewer Robotics helps municipalities and service contractors optimize their asset management, saving time, money, and effort.

Scan the QR code and have a look!

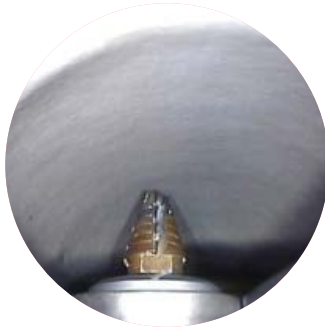


A dark, rocky tunnel with water flowing through it, creating a sense of mystery and suspense. The water is dark and reflects the surrounding rock walls. The text "WHAT IF YOU RUN INTO..." is overlaid in the center of the image.

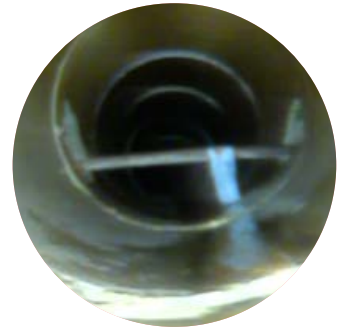
WHAT IF YOU
RUN INTO...



INTRUDING TAPS



CIPP LINER



REBAR



ROOTS & FAT



GREASE



TUBERCULATION



CEMENT



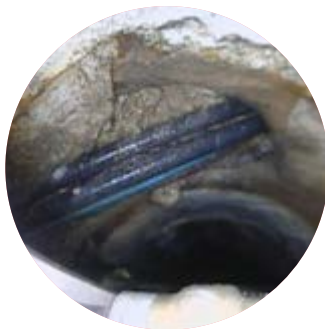
MINERALS



CONCRETE



INFILTRATION

STRUCTURAL
DEFECTSCOLLAPSED
PIPELINE

**ONE MULTIFUNCTIONAL CRAWLER
WITH VARIOUS JOB-SPECIFIC MODULES
FOR MULTIPLE APPLICATIONS**



REINSTATEMENT CUTTER

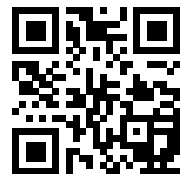
THE SR-SERIES

**THE ULTIMATE TOOL FOR
PIPELINE MAINTENANCE**



PRECISION WATER JET

**OUR ROBOTS ARE EASILY TRANSFORMED FROM A POWERFUL
REINSTATEMENT CUTTER TO A WATER JET CUTTER, JUST BY
SWAPPING MODULES IN LESS THAN 60 SECONDS.**

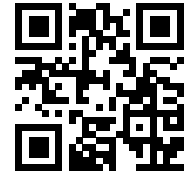


SCAN FOR VIDEO

“FAST AND CONTROLLED BREAKDOWN OF SOLID OBSTRUCTIONS”

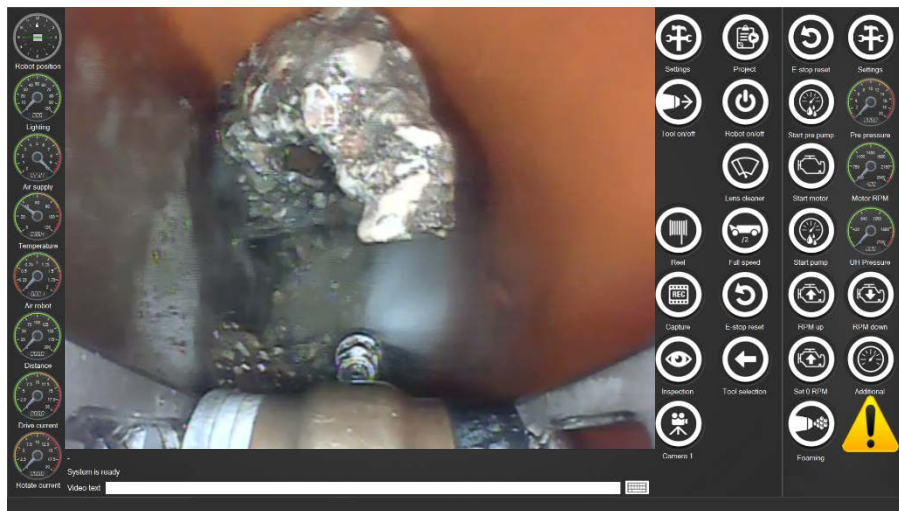


UHP PRECISION WATER JET CUTTING HOW DOES IT WORK?



SCAN FOR VIDEO

Precision water jet cutting applies a continuous adjustable high pressure/ low volume water blast from a special designed crawler, with precisely steerable nozzle and CCTV camera module, for controlled removal of deposits settled and solid obstructions from within 150 - 1000mm (6- 40") pipes and their lateral connections.



PROS

- EYES ON THE JOB
- POWERFUL
- CONTROLLED
- VERSATILE

Eyes on the job and continuous adjustment of water pressure, angle with the pipe and distance to the material enable the operator to achieve the breakdown and elimination of various obstructions without adding damage to the pipe structure.



**WITH UP TO 3000BAR (43,500PSI)
PRECISION WATER JET CUTTING
REMOVES: FOG, DEBRIS, ROOTS,
CEMENT, SCALE, TUBERCULATION,
GROUT, CALCIUM & CONCRETE.**



WATER JET CUTTING ROBOTS



SCAN FOR VIDEO

Nearly two decades of UHP water jet cutting experience can be recognized in the designs and features of our precise and reliable directional cutting robots that are easy to operate and easy to service.

Made from durable stainless steel and with enough freedom of movement to apply a powerful water blast, directly to the material, under the right angle and with constant camera supervision in pipelines of varying diameters.



	WJ125	WJ180	WJ200	WJ250
Pipe ø	150 – 600mm (6-24")	200 – 500mm (8-20")	250 – 750mm (10-30")	300 – 1000mm (12 – 40")
Max. pressure	3000bar (43,500psi)	3000bar (43,500psi)	3000bar (43,500psi)	3000bar (43,500psi)
Ram lift	210mm (8")	N/A	270mm (11")	520mm (20")
Nozzle tilt	90°	90°	100°	90°
Compatible Crawler	R125	R160	R160	R250
More info	P54	P61	P60	P65

***"IN 30 MINUTES MORE MATERIAL WAS
REMOVED THAN WHAT 5 OTHER COMPANIES
HAD REMOVED TOGETHER IN 3 WEEKS"***

“TARGET THE SPECIAL JOBS WITH **HIGH RATES** & LOW COMPETITION”

DURABLE STAINLESS BODY

Without delicate exterior parts and with a diameter of only 100mm (4”).

Its durable and short design provides ease of deployment from tight manholes and sufficient clearance to reach far inside pipes.



ADJUSTABLE SPEEDS

Of the electric movements (driving and rotating) allow operators to drive to the job fast. Then reduce the speed to maximize precision.

TWIST-AND-LOCK MECHANISM

Convert the UHP water jet cutter into a powerful lateral reinstatement cutter- or CCTV inspection robot within 60 seconds. The available, purpose-build, modules widen the robot's application range.

PRO'S

VERSATILE – convert into a reinstatement cutter in just 60 seconds

POWER & PRECISION – to remove FOG, roots, cement, calcium & concrete

WIDE SCOPE OF USE – from 150 – 600mm (6-24")

EASY SERVICEABLE – with personal assistance and clever maintenance kits

RELIABLE – build tough, from durable materials

ACCESSIBLE PARTS – reasonably priced parts ,shipped the same day

GREAT VISIBILITY

A wide-angle camera with continuously adjustable LED lighting is placed directly behind the cutter and easily cleaned with the on-demand lens cleaner.

POWER FROM THE RIGHT ANGLE

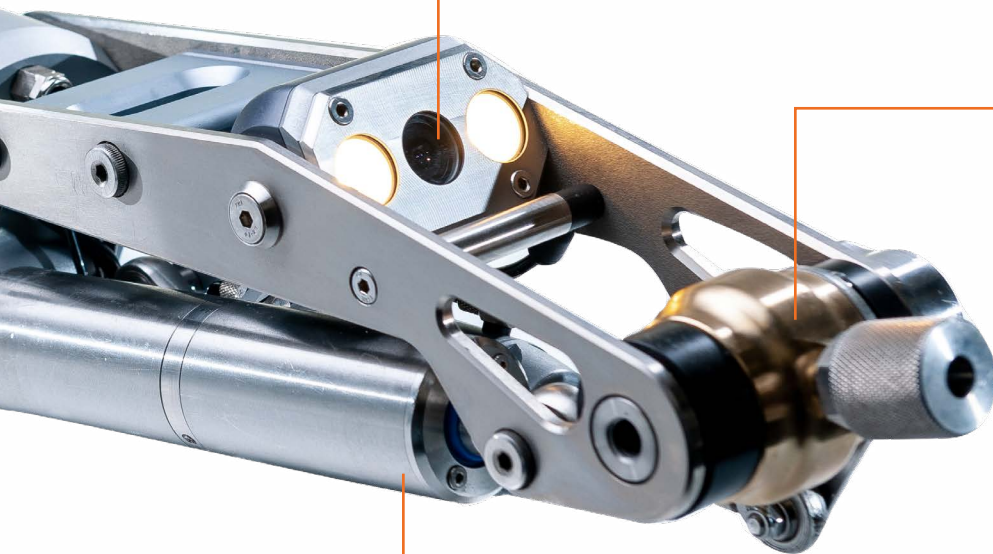
Water jet cutting uses a targeted high pressure water blast, precisely applied and continuously monitored.

To remove roots, cement, grout, concrete, failed liners and mineral deposits without adding damage to the host pipe.

HYDRO-PNEUMATIC ACTUATORS

The 210mm (8") ram lift and 110° nozzle tilt provide a very wide application scope from 150 – 600mm ("6-24") and are realized by hydro-pneumatic actuators.

These in-house developed, linear actuators are operated with compressed air and have an enclosed hydraulic circuit to combine the strength and precision of hydraulic cylinders with the convenience and serviceability of pneumatic actuators and without hydraulics inside the robot.





SEWER ROBOTICS was the first company to introduce UHP water jet cutting from a specialized crawler to remove solid obstructions and deposits settled. Our customers worldwide have removed many different materials and saved lots of pipes from replacement over the course of more than 2 decades. Some examples:



Removal of aggregate concrete from a 200mm (8") Vitrified Clay Pipe with the WJ125 water jet at 1500bar (21,750psi).



The WJ125 utilizing 1000 bar (14,500psi) to remove tuberculation from this 300mm (12") pipe, as if it was butter.



The capacity of this pipe was restored in a few hours, using 1000bar (14,500psi) to remove the mineral build-up.





20 YEARS OF UHP WATER JET CUTTING



A huge amount of natural wax got into the sewer and storm lines after a factory fire. The obstructions were removed rapidly with the 500 bar (7,250psi) water jet.



This calcium carbonate had built up in a tunnel over many years. It took various night shifts and 2500 bar (36,250psi) to remove it.



The calcium in this coated VCP 300mm (12") sewer pipe blocked more than half of the pipe and was broken into smaller pieces with the WJ180 at 1000bar (7,250psi).



LOMBARDY, IT



After various failed attempts of different nozzles and cutters, Sewer Robotics was invited to remove the concrete that has been blocking this 400mm (16") sewer main line for the past 10 years.

The R125 robot with WJ125 water jet module was used at 1000bar (14,450psi) to cut the concrete into small pieces. In the first few hours, the flow was restored by removing about a meter (3FT) of 100% blockage, exposing cross-bores as the possible entry point of the deposits. The remaining concrete on the bottom was removed after.

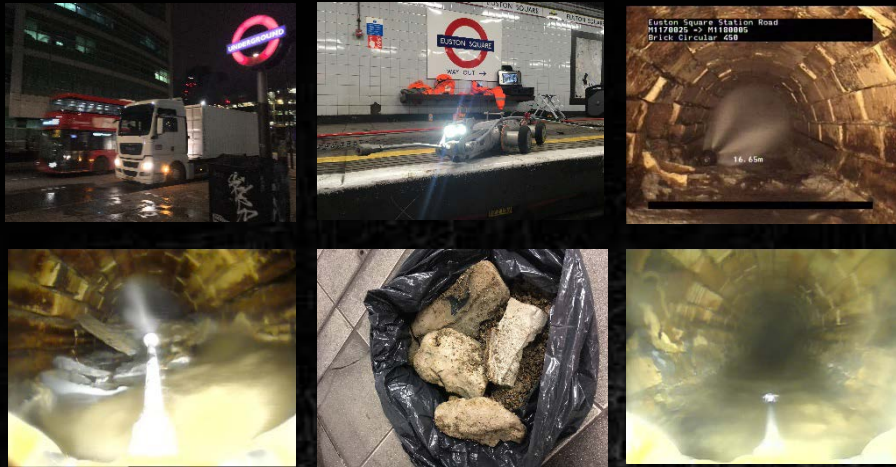
SWISS ALPS, CH



Limescale, the crystallized mineral deposits often found in sewer pipelines of hard water areas, has been successfully removed from multiple sewer pipelines in the Swiss Alps with the Sewer Robotics system.

The calcium carbonate had build up over many years and required up to 2500bar (36,250psi) to remove.

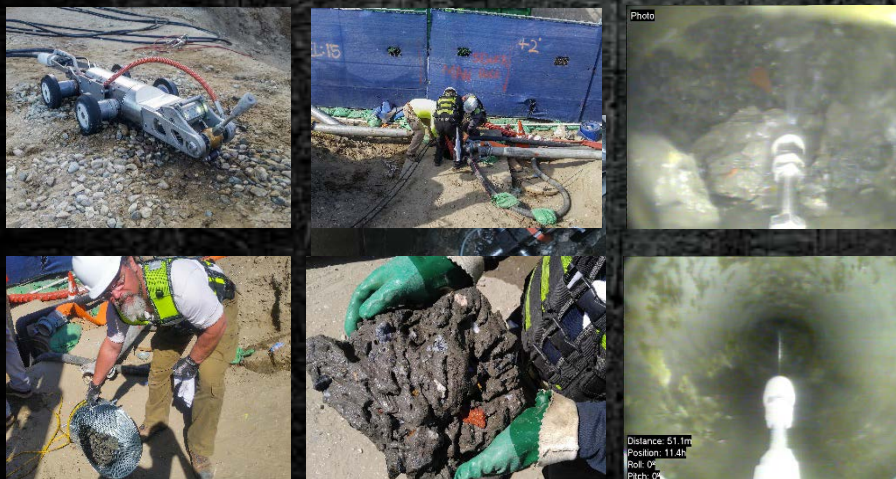
LONDON UNDERGROUND, UK



The Sewer Robotics mobile cable reel and control unit were successfully used to remove over 5m (15ft) of concrete from an antique 500mm (20") brick storm water pipeline inside one of London's oldest subway stations.

The truck with installed water supply and remotely controlled, diesel engine driven, 2800bar (40.600PSI) high pressure pump was parked outside, with hoses laid out over a total length of 320 meters (1,000ft) from pump to robot.

LOS ANGELES, USA



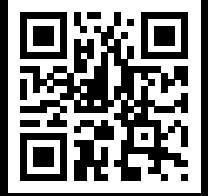
Concrete slurry with aggregate was poured into 250mm, 375mm and 450mm (10", 15", 18") sewer mainlines after boring into an unmarked sewer line during ground stabilization work in a coastal condo development near Los Angeles. The solid obstructions were blocking the sewage flow from a nearby residential area towards the treatment plant and threatening the progress of the construction project.

With eyes on the 1000bar (14,500psi) water blast, the operators cut their way through the concrete, breaking it into smaller pieces. It took multiple weeks to clear all concrete blockages from the three main sewer lines and saved the building project millions of dollars as construction could continue.

**“CUTTING POWER & PRECISE CONTROLS
FOR FAST REINSTATEMENT
AND SMOOTH CUTS”**



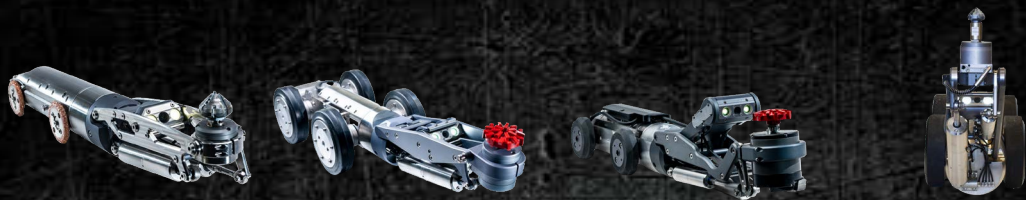
GRINDING, MILLING AND CUTTING



SCAN FOR VIDEO

Sewer Robotics reinstatement cutters feature precise movements and can be used with water driven cutter motors for extremely powerful and fast reinstatement or cutting intruding taps of any material.

Designed durable and user-friendly, with maximum clearance and a wide scope of applications, easy to service, and easy deployment from tight manholes.



	HA125	HA195	HA200	HA250
Pipe ø	150 – 500mm 6-20"	250 – 750mm 10-30"	250 – 750mm 10-30"	250 – 1000mm 10 – 40"
Compatible cutter motor	Water, Pneumatic, Electric	Water, Pneumatic, Electric	Water, Pneumatic, Electric	Water, Pneumatic, Electric
Ram lift	205mm 8"	270mm 11"	270mm 11"	325mm 13"
Cutter pivot	90°	90°	90°	90°
Camera position	Fixed	Infinite Rotation	Infinite Rotation, Lift	Infinite Rotation
Lens cleaner	Compressed air Water*	Compressed air, Wiper, Water*	Compressed air, Wiper, Water*	Compressed air, Wiper, Water*
Compatible crawler	R125	R160	R160	R250
More info	P.55	P.62	P.63	P.66



CUTTING A CAST IRON TAP



CIPP LATERAL REINSTATEMENT

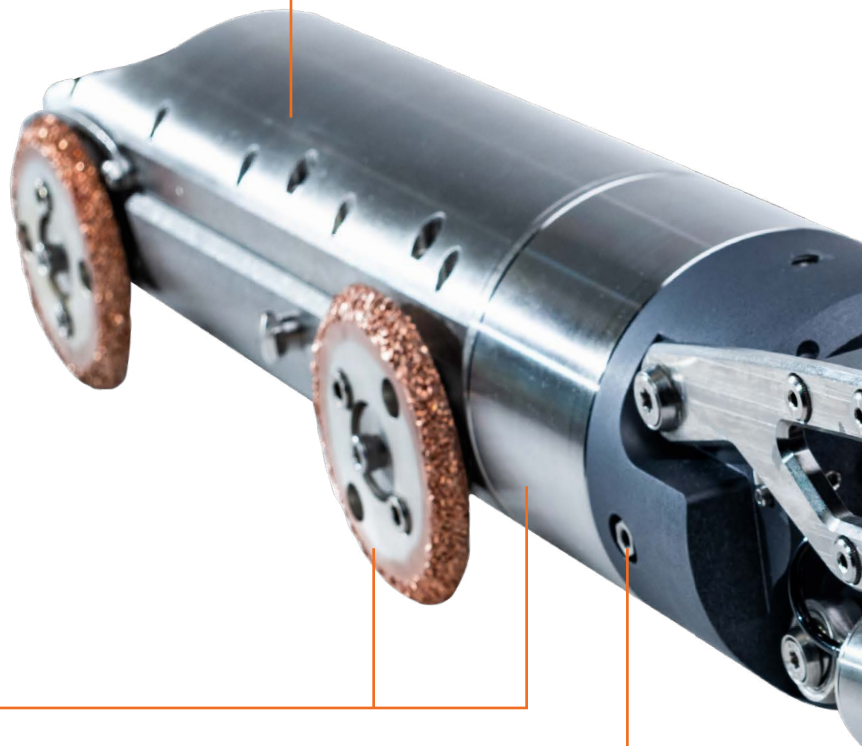
* When utilized with the water driven cutter motor

“THE HA 125, CONTRACTORS’ PREFERRED CUTTER”

DURABLE STAINLESS BODY

Without delicate exterior parts and with a diameter of only 100mm (4”).

Its durable and short design provides ease of deployment from tight manholes and sufficient clearance to reach far inside pipes.



ADJUSTABLE SPEEDS

Of the electric movements (driving and rotating) allow operators to drive to the job fast. Then reduce the speed to maximize precision.

TWIST-AND-LOCK MECHANISM

Convert the reinstatement cutter into a UHP Water jet cutting- or CCTV inspection robot within 60 seconds.

The available, purpose-build, modules widen the robot's application range, while UHP water jet cutting provides access to a niche market with high rates and low competition.

PRO'S

VERSATILE – to target the 'special' well-paid jobs

POWER & PRECISION – get a quality job done fast

WIDE SCOPE OF USE – from 150 – 500mm (6-20")

EASY SERVICEABLE – with personal assistance and clever maintenance kits

RELIABLE – build tough, from durable materials

ACCESSIBLE PARTS – reasonably priced parts, shipped the same day

GREAT VISIBILITY

A wide-angle camera with continuously adjustable LED lighting is placed directly behind the cutter and easily cleaned with the on-demand lens cleaner.

POWER

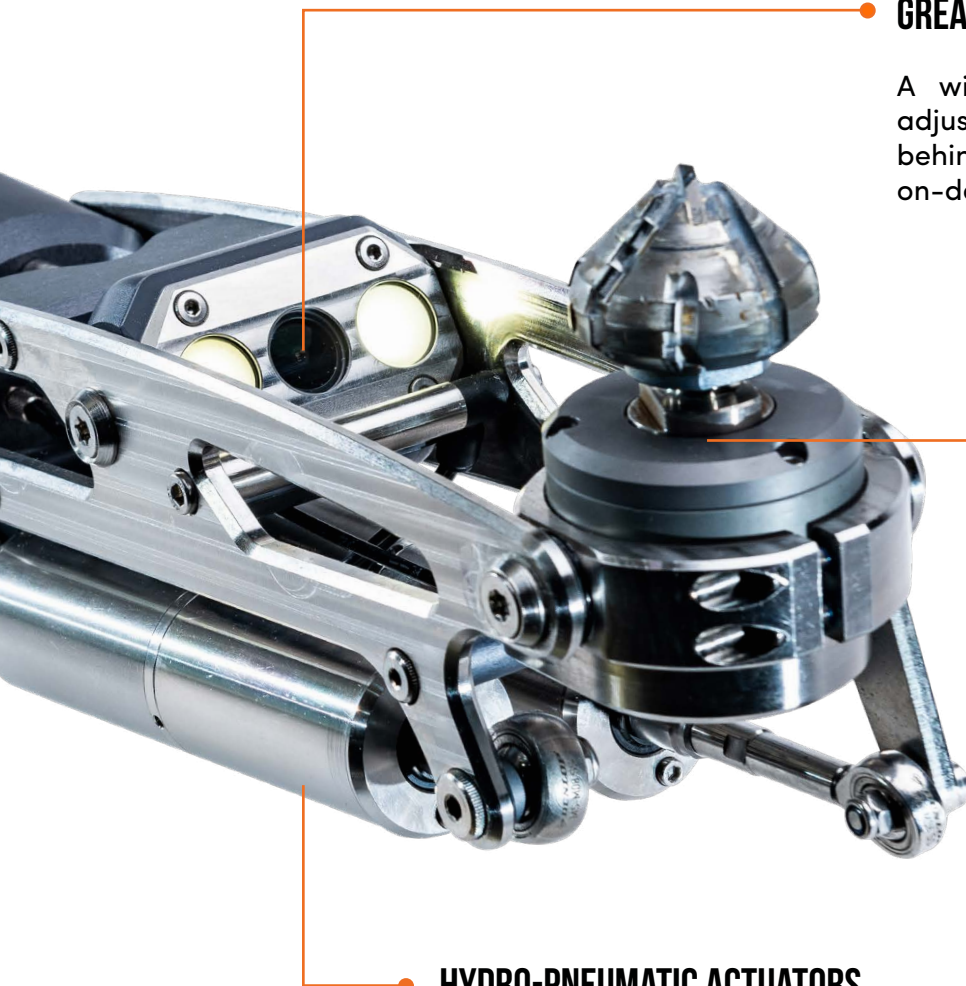
The powerful WM300 water hydraulic, and EM300 electric cutter motors cut rapidly through cast iron, concrete and CIPP liner material and leaves a smooth cut.

After removing the cutter motor, an (UV) spot repair packer can be attached via a "puck" coupling.

HYDRO-PNEUMATIC ACTUATORS

The 205mm (8") ram lift and 90° cutter motor pivot provide a very wide application scope from 150 – 500mm ("6-20") and are realized by hydro-pneumatic actuators.

These in-house developed, linear actuators are operated with compressed air and have an enclosed hydraulic circuit to combine the strength and precision of hydraulic cylinders with the convenience and serviceability of pneumatic actuators without hydraulics inside the robot.



WATER, AIR, OR ELECTRIC CUTTING?

Although most contractors appreciate the added power, low maintenance costs and easy upgrading to water jet cutting, there might be jobs where a water supply is not desired or silence more appreciated.




SEWER ROBOTICS cutters can be used with powerful water driven, pneumatic or silent electric cutter motors.



WM300



WM500

DRIVE	MOTOR	CUTTER	BENEFITS
 Water	WM300 WM500	HA125 HA195 HA250	+ Extreme power + Low maintenance costs + Upgrade to water jet cutting
 Air	PM300 PM500	HA125 HA195 HA250	+ No water supply required
 Electric	EM300 EM500	HA125 HA195 HA250	+ Single cable + Silent

CCTV INSPECTION & SPOT REPAIR



CCTV mainline (pre- and post) inspections without the requirement for an additional CCTV inspection robot system on site. The R125 and R160 crawlers are compatible with the CAMTRONICS ZRK70 HD Pan & Tilt inspection camera for High-Definition pre- and post inspections.

This CCTV inspection module features a pan & tilt camera and a pressure adjustable air coupling at the front, operated from the control unit to connect with most available spot repair packers in the market.

PRO'S

- Compatible with the same robot that is used for grinding and water jetting
- Compatible with WINCAN, POSM, SCS & SEWER ANALYTICS WEB
- Automatic web synchronization
- Auto-horizon adjustment
- Single button joint inspection
- Air coupling for spot repair packers
- Camera compatible with push cable for inspection of 4" (100mm) pipeline



CAM125 - P.53
150-500mm (6-20")



CAM160 - P.57
200-500mm (8-15")



SERVICE & MAINTENANCE

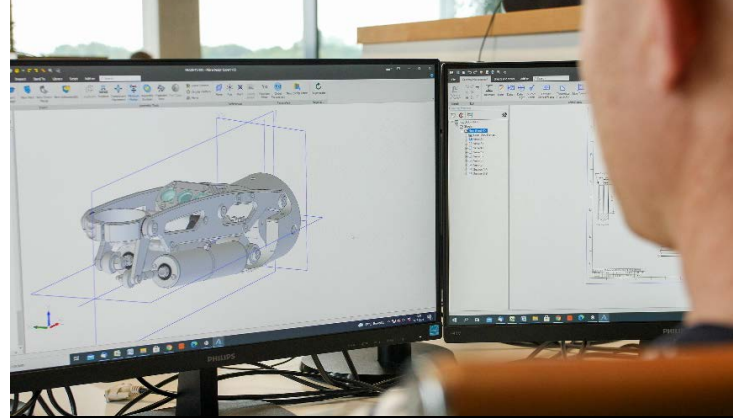
EASY SERVICE AT FAIR COSTS

Our equipment is built as tough as can be, with a slim, stainless-steel body and without delicate external parts, wiring and cables.

But as we know, anything can get broken in this industry and home-owners need to be able to use their toilets at the end of the day.

Therefore, we design our equipment so that it is easy to service, complete with service kits and training.

Our spare parts are reasonably priced and shipped the same day (if ordered before noon). Factory repairs are usually shipped back within 48 hours from arrival at our factory. And, we have loaner equipment available (also for when your project requires an additional or different robot or module than what you have already).



PRO'S

- PERSONAL ASSISTANCE
- SELF REPAIR POSSIBILITY
- REMOTE SYSTEM DIAL-IN
- FAIR PRICED PARTS
- WEBSHOP FOR PARTS & ACCESSORIES
- LOANER EQUIPMENT



CABLE REPAIR
SET



CUTTER MOTOR

CABLE RETERMINATION

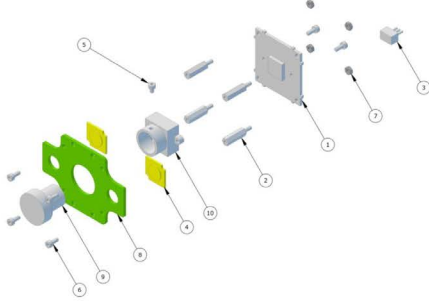
The robot's strain relief is designed so, that a single operator can do a cable retermination in the field within 90 minutes with our cable repair kit and instruction video.



CABLE REPAIR
VIDEO

CUTTER MOTOR REBUILD

When our cutter motors lose power after long and intense usage, they do not need to be exchanged. Instead, the ceramic bearings of the cutter motor can be replaced within 15 minutes in the field.




-	0	+	Camera module CT40
-	0	+	1 - 1/3' 700 tvl Color CCTV Board Camera
-	0	+	2 - Brass Spacer Stud, metric, internal/external WA-SBR1E
-	0	+	3 - 3pin small Cable 50mm
-	0	+	4 - 18V LED
-	0	+	5 - HEXAGON SOCKET HEAD CAP SCREW FULLY THREADED DIN Eö912 STAINLESS STEEL A2 RIGHT 70 M2X3
-	0	+	6 - HEXAGON SOCKET HEAD CAP SCREW FULLY THREADED DIN Eö912 STAINLESS STEEL A2 RIGHT 70 M2X5
-	0	+	7 - HEXAGON NUT DIN 934 STAINLESS STEEL A2 RIGHT 70

SPARE PARTS

Product categories


Filter by price



PRO Tapered milling cutter with tungsten carbide tip (Diameter 28-18 mm / Height 45 mm)

C549.00


[Add to Wishlist](#)



PRO Ball milling cutter (Diameter 40 mm / Height 36 mm / 12 segments)

C475.00


[Add to Wishlist](#)



PRO Tapered milling cutter with tungsten carbide tip (Diameter 30-18 mm / Height 35 mm)

C469.00


[Add to Wishlist](#)



Premium Ball milling cutter (Diameter 50 mm / Height 46 mm / 19 segments)

C249.00


[Add to Wishlist](#)



Premium Inlet milling cutter (Diameter 68 mm / Height 33 mm / 16 segments)

C240.00

[Add to Wishlist](#)

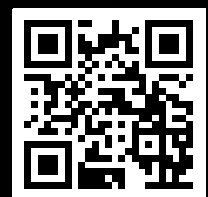


Premium Tapered milling cutter (Diameter 52-42 mm / Height 40 mm / 9 segments)

C240.00

[Add to Wishlist](#)

ACCESSORIES



SCAN FOR SHOP

A man in a white polo shirt is working in a warehouse or parts store. He is reaching into a high shelf to pick a part. In the foreground, there is a grey storage bin. The background shows more shelves and parts.

WEBSHOP FOR PARTS & ACCESSORIES


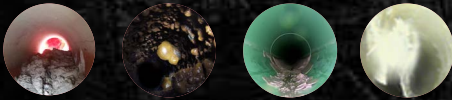
WHAT PRESSURE DO YOU NEED?

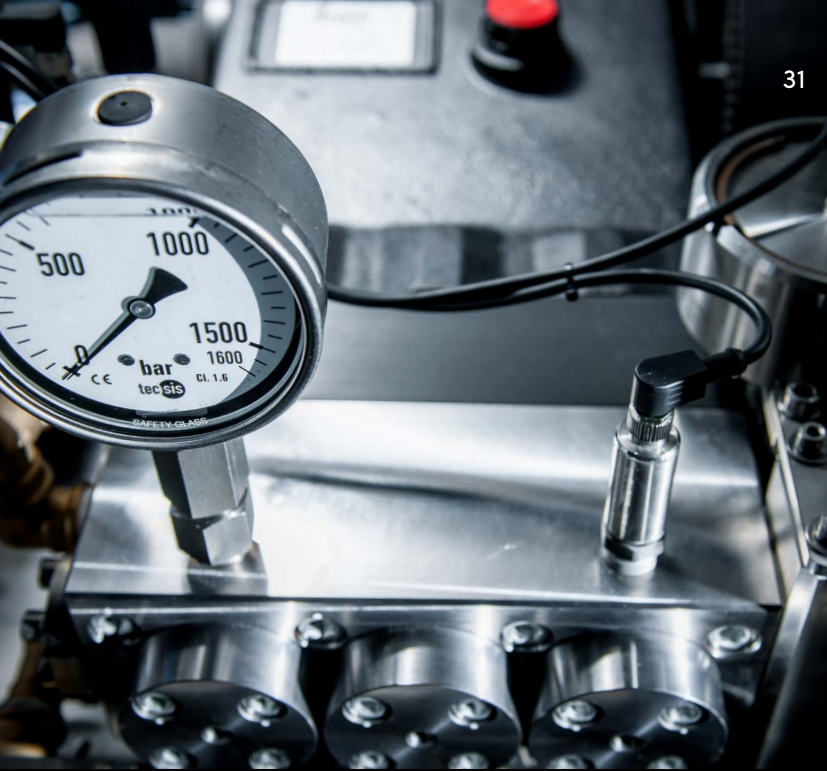
Continuous pressure adjustment of Sewer Robotics high pressure units allow the operator to adapt immediately to different materials and ever changing conditions from the control unit.

High pressure units are available with a maximum pressure of:

- 500BAR (7,250PSI)
- 1000BAR (14,500PSI)
- 1500BAR (21,750PSI)
- 2200BAR (32,000PSI)
- 3000BAR (43,600PSI)

GETTING THE JOB
DONE REQUIRES THE
RIGHT **WATER PRESSURE**

APPLICATION	MATERIAL	REQUIRED MAX. WATER PRESSURE
REINSTATEMENT, CUTTING & GRINDING	 CIPP LINER, PVC, BRICK, VITRIFIED CLAY, CONCRETE, CAST IRON, & STAINLESS STEEL	500 BAR (7,250PSI)
PRECISION WATER JET CUTTING	 ROOTS & GREASE	500 BAR (7,250PSI)
PRECISION WATER JET CUTTING	 CEMENT, CORROSION, SCALE, GROUT & CIPP LINER	500 – 1500 BAR (7,250-21,750PSI)
PRECISION WATER JET CUTTING	 CALCIUM, CONCRETE AND OTHER EXTREMELY HARD MATERIALS	1500 – 3000 BAR (21,750-43,500PSI)



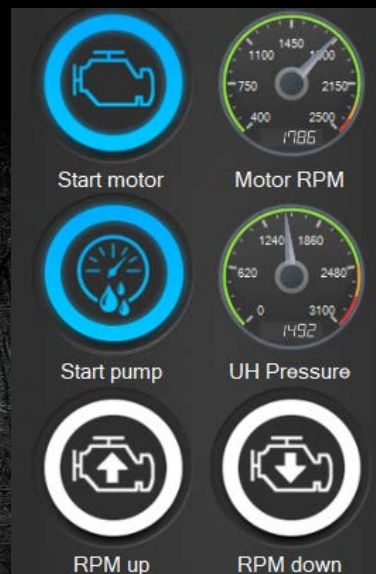
HIGH PRESSURE UNITS

SEWER ROBOTICS high-pressure units are available with maximum pressures ranging from 500bar (7,250psi) to 3000bar (43,500psi) and can be driven by a combustion engine, electric motor or the vehicle's engine via the Power Take Off (PTO).

DIGITAL CONTROLS

SEWER ROBOTICS high pressure units are built with digital controls and sensors for continuous pressure adjustments and immediate pump operation without leaving the robot controls.

Digital pressure reading can be used for training and reporting.



PUMP CONTROL SOFTWARE

PRO'S

- FUEL-EFFICIENT
- IN CONTROL — WITHOUT HAVING TO LEAVE THE CONTROL UNIT
- CONTINUOUS ADJUSTMENT OF PRESSURE - TO ADAPT TO DIFFERENT MATERIALS AND EVER-CHANGING CONDITIONS
- ALL IMPORTANT OPERATING DATA DIGITAL & AT A GLANCE

PETROL, DIESEL OR PTO PUMP

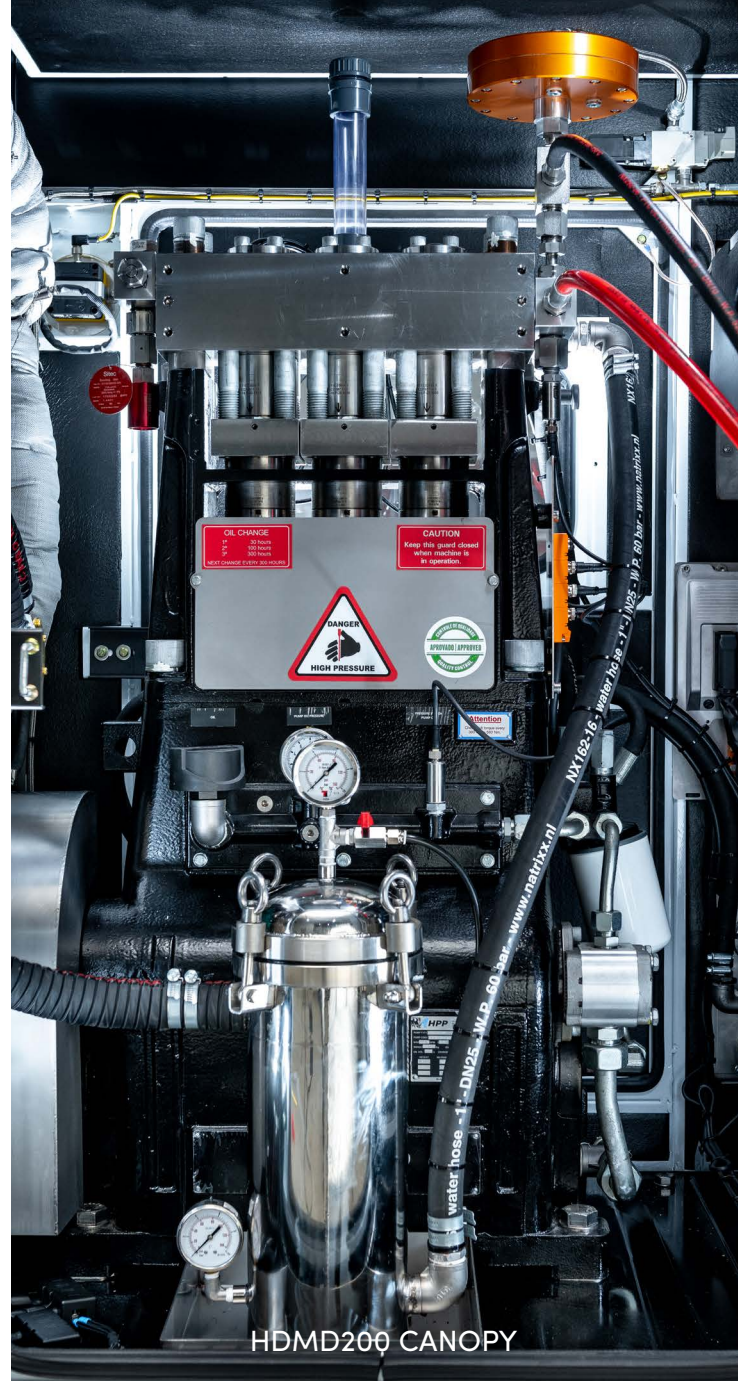
SEWER ROBOTICS (Ultra) high pressure units are available for a wide variety of applications and at different investment costs.



HDMP30-1000-11 PRO CART



HDMP30-1000-11 UNDERCARRIAGE BOX



HDMD200 CANOPY

COMBUSTION (HDM) HIGH-PRESSURE UNIT

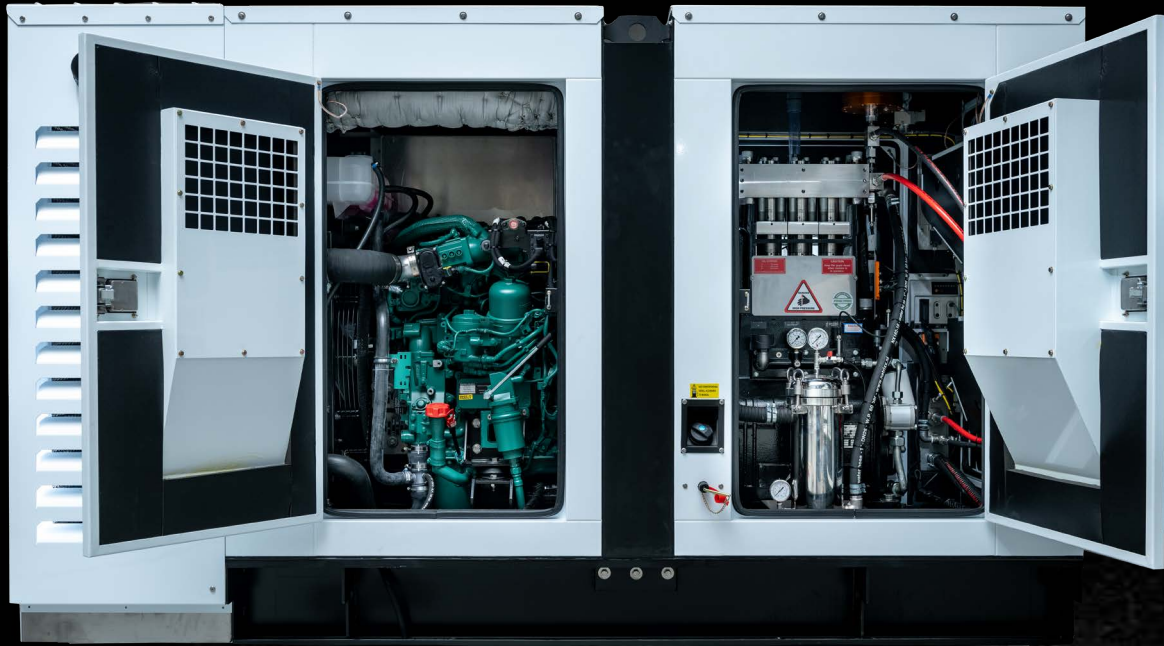
The combustion engine driven high-pressure unit features a Diesel or Petrol motor to drive the pump.

PRO'S

- Stand-alone
- Compact
- Sound-proof
- Diesel emission: Up to Tier 4 final & Stage V



HDMD37 – HDMD55 CANOPY

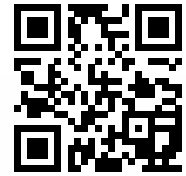


HDMD200 - 2800BAR (40,600PSI)

AVAILABLE HIGH-PRESSURE UNITS

HP-UNIT	TYPE (S)	PRESSURE/ FLOW	DRIVE	WEIGHT	DIMENSIONS LXWXH	VEHICLE GVWR
HDMP500-15	Cart / Under carriage box	500bar (7,250psi) 15LPM (4.0gpm)	Petrol engine	220kg (484lbs)	1064x500x1125mm (32x20x42")	>3500kg (7,715lbs)
HDMD500-16	Cart / Under carriage box	500bar (7,250psi) 15LPM (4.0gpm)	Diesel Engine (TIER4 / stage V)	340kg (750lbs)	1200x750x900mm (47x30x35")	>3500kg (7,715lbs)
HDMD19-700-12	PRO Cart / Under carriage box	700bar (10,150psi) 12LPM (3.2gpm)	Diesel Engine (TIER4 / stage V)	340kg (750lbs)	1200x750x900mm (47x30x35")	>3500kg (7,715lbs)
HDMP30-750-18	PRO Cart / Under carriage box	750bar (10,878psi) 18LPM (4.8gpm)	Petrol Engine	250kg (550lbs)	1200x750x900mm (47x30x35")	>3500kg (7,715lbs)
HDMP30-1000-11	PRO Cart / Under carriage box	1000bar (14,500psi) 11LPM (3.0gpm)	Petrol Engine	250kg (550lbs)	1200x750x900mm (47x30x35")	>3500kg (7,715lbs)
HDE37-1000-19	Under carriage box	1000bar (14,500psi) 19LPM (5.0gpm)	Electric (via PTO generator)	280kg (620lbs)	1810x860x1150mm (71x34x45")	>8845kg (19,500lbs)
HDPT037-1000-19	Under carriage box	1000bar (14,500psi) 19LPM (5.0gpm)	PTO Direct	250kg (5,50lbs)	Installed under chassis	>5000kg (>11,000lbs)
HDMD55-1500-19	Canopy / Trailer	1500bar (21,750psi) 19LPM (5.0gpm)	Diesel engine (TIER4 / stage V)	975kg (2,150lbs)	1810x860x1150mm (71x34x45")	>12000kg (>26,450lbs)
HDMD55-2200-12	Canopy / Trailer	2200bar (32,000psi) 12LPM (3.0gpm)	Diesel engine (TIER4 / stage V)	975kg (2,150lbs)	1810x860x1150mm (71x34x45")	>12000kg (>26,450lbs)
HDPT055-1500-19	Under carriage box	1500bar (21,750psi) 19LPM (5.0gpm)	Truck PTO Hydraulic	975kg (2,150lbs)	Installed under chassis	>8000kg (>17,600lbs)
HDPT055-2200-12	Under carriage box	2200bar (32,000psi) 12LPM (3.0gpm)	Truck PTO Hydraulic	975kg (2,150lbs)	Installed under chassis	>8000kg (>17,600lbs)
HDPT0150-2800-24	PTO	2800 bar (40,600psi) 24LPM (6.3gpm)	Truck PTO Direct	1000kg (2,205lbs)	Installed on chassis	>16000kg (>35,270lbs)
HDMD200-2500-36	Canopy / Trailer	2800 bar (40,600psi) 36LPM (9.5gpm)	Diesel Engine (Stage V)	2500kg (5,510lbs)	3006x1083x1833MM (118X43X72")	>16000kg (>35,270lbs)
HDMD200-2800-29	Canopy / Trailer	2800 bar (40,600psi) 29LPM (7.5gpm)	Diesel Engine (Stage V)	2500kg (5,510lbs)	3006x1083x1833MM (118X43X72")	>16000kg (>35,270lbs)
HDPT0200-2800-29	PTO	2800 bar (40,600psi) 29LPM (7.5gpm)	Truck PTO Direct	1000kg (2,205lbs)	Installed on chassis	>16000kg (>35,270lbs)

MOBILE CONFIGURATION



SCAN FOR VIDEO

This economic mobile system configuration is compatible with all SEWER ROBOTICS CRAWLERS and job-specific modules for Electric cutting, CCTV Inspection and UV spot repair.

This configuration is easily upgraded for UHP water jet cutting by adding a high pressure unit and second reel with high pressure hose.

The cable- and hose reels have a small footprint for easement work and installation into any type of vehicle. This control system and reel can be used with PRO-JETTING's tank cleaning- and industrial robots.



HH100 HYBRID CABLE REEL AND CP3DP MOBILE CONTROL UNIT
WITH HA195 ELECTRIC CUTTER, UVP125 UV PACKER AND HA125 ELECTRIC CUTTER

CP3DP SUITCASE CONTROL UNIT

- PC : 15.6" (1.920 x 1.080) Touch Screen Panel
- Joysticks : Dual, 6-axis, responsive joysticks
- Interfaces : Robot power supply, communication interface & video interface
- Camera : Photo and video capturing with text overlay
- Power : 100-230V, 50-60Hz
- Dimensions : 540x410x225mm (21.3x16.1x8.7") – closed
- Weight : 18kg (40lbs)

HH100 CABLE & HOSE REELS

- Max. lengths : 120M (400ft)
- Max. pressure : 1500bar (21,750psi)
- Dimensions : 620x440x620mm (24.4x17.3x24.4") each – Stackable
- Weight : 80kg (175lbs) each
- Compatible Robots : R125, R160, R250, R600, TWK300E



FROM OUR SHOP TO YOUR JOB

- COST-EFFICIENT
- POWERFUL WITH ACCESS TO NICHE MARKETS
- RUGGED SUITCASE CONTROL UNIT
- CABLE AND HOSE REELS 120M (400FT)
- COMPATIBLE WITH ALL ROBOTS & MODULES
- SMALL FOOTPRINT
- MINIMAL INVESTMENT



Aluminium pallet skid for convenient storage and shipping of the mobile configuration.

EASY-TO-USE SOFTWARE AND ERGONOMIC CONTROLS

The ID-RIS operating software runs from a touch screen computer, displays live video and system data and allows remote control and continuous pressure adjustment of the pump.

All movements of the crawler, job specific modules and reels are operated from two programmable 6-axis joysticks.



PRO'S

- CONTINUOUS PRESSURE ADJUSTMENT FROM CONTROL UNIT
- TWO 6-AXIS JOYSTICKS
- CUSTOMIZABLE JOYSTICK SETTINGS
- PHOTO- AND VIDEO CAPTURING
- COMPATIBLE WITH NASSCO PACP CERTIFIED POSM AND WINCAN SOFTWARE

HYBRID CABLE & HIGH PRESSURE HOSE REELS

MH200R - MH200HD

The MH200R and MH200HD Hybrid Cable and High Pressure Hose Reels are installed in heavy duty stainless steel frames with standard 150m (500') and maximum 250m (820') cable and high pressure hose. The reels feature cross-lead spindles, adjustable speeds, distance measurement and can be controlled individual or simultaneous from the reels, the control unit or a remote control.

HYBRID CABLE REEL

The Kevlar protected hybrid cable holds wiring for power, video and communication around an air supply hose for the pneumatic movements and positive pressure inside the transporter and modules.

HIGH PRESSURE HOSE REEL

The high-pressure hose supplies water under pressure for precision water jet cutting and reinstatement cutting operations. The MH200HD has an UHP swivel for pressures up to 1500bar (21,750psi).

*Individual Ultra high pressure hose segments and reels are available for pressures up to 3000bar (43,500psi).



SPECIFICATIONS

- Standard length : 150m (500')
- Max. length : 250m (820')
- Max. pressure : 1500bar (21,750psi)*
- Dimensions : 820x500x1020mm (33x20x40") each
- Weight : 220kg (485lbs) each

FEATURES

- Controlled from reels, control unit or remote control
- Distance measurement
- Cross lead spindle
- Adjustable speeds
- Torque regulated synchronization
- Loop detection sensor
- Stainless steel frame
- Double wired remote control with emergency stop

VAN & TRAILER

SKID



SCAN FOR VIDEO

This plug-and-play skid offers a convenient and affordable solution for integrating SEWER ROBOTICS' lateral reinstatement and precision jet cutting robot systems in vans, trailers and other vehicles.

With a 1000L (264gal) water tank, 3000W power inverter, operator desk with flush mounted joysticks and 27" touch screen PC, rear view camera, and robot storage drawer, it only needs to be anchored inside the vehicle and connected to the vehicle's batteries.



SKID WITH HA195 CUTTER ROBOT

SPECIFICATIONS

- | | |
|-----------------------|--|
| ■ Compatible reels | : HH100 - 120m (400') |
| | : MH200 - 250m (820') |
| ■ Control unit | : Flush mounted CP3D joystick panel & 27" Touchscreen PC |
| ■ Compatible vehicles | : Vans, trailers and trucks |
| ■ Water supply | : 1000L (264gal) or more |
| ■ Power supply | : 3000watt 100-230V, 50-60Hz inverter (12-24VDC) |
| ■ Dimensions | : D2400xW1400xH1620mm (94.5x55.2x64") |
| ■ Weight | : 340kg (750lbs) (empty tank) |
| ■ Vehicle GVWR | : 3500kg (7,716lbs) with empty tank - or heavier |
| ■ Compatible Robots | : R125, R160, R250, R600, TWK300E |

FEATURES

- CCTV Vicinity camera system
- Robot storage drawer
- Electric pre-pressure pump

***"FROM OUR SHOP,
STRAIGHT TO YOUR JOB"***



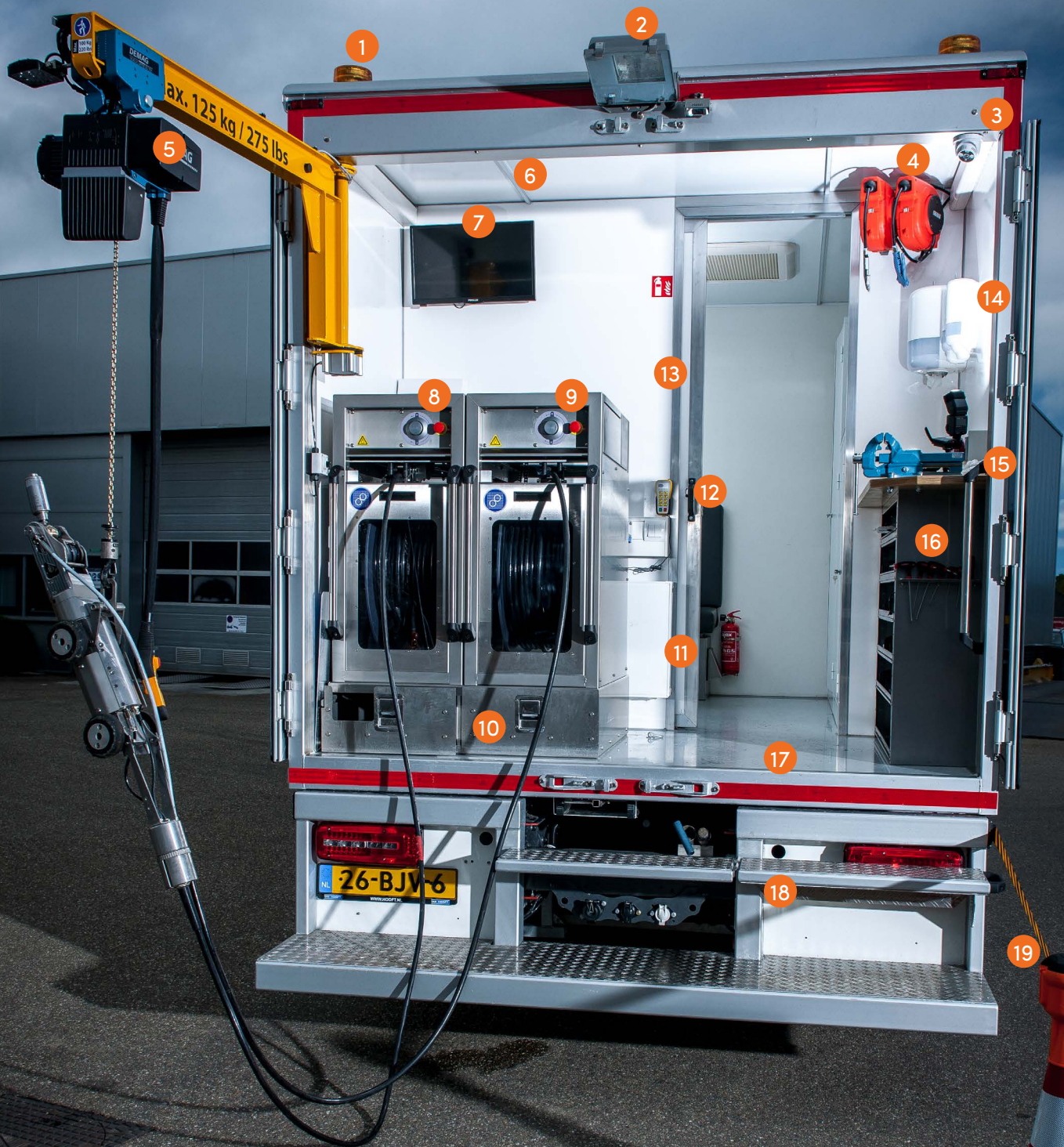
SKID WITH MH200 REELS AND HA125 CUTTER INSIDE A COMPACT TRAILER

PRO'S

- PLUG-AND-PLAY
- CONVENIENT OPERATOR DESK
- 27" TOUCH SCREEN PC
- 1000L (264GAL) WATER SUPPLY
- ROBOT STORAGE DRAWER
- COMPATIBLE REELS
 - : HH100 — 120M (400')
 - : MH200 — 250M (820')



SKID CONTROL SIDE
FROM SIDE ACCESS DOOR



*"WHEN YOU SPEND JUST AS MUCH TIME
ON THE JOB AS YOU DO AT HOME,
YOU NEED EQUIPMENT THAT
LOOKS AND FEELS GOOD"*

SPECIAL PURPOSE VEHICLE

Sewer Robotics box installations have everything exactly at the right place. Reels, robot storage and a workbench in the equipment compartment. Convenient touch screen controls and customizable joysticks, cabinetry with sufficient storage in a laboratory alike control studio and a powerful high-pressure unit with water- and power supplies in the engine room.

EQUIPMENT COMPARTMENT

- 1. BEACONS OR STROBE LIGHTS**
- 2. WORK LIGHT**
- 3. REAR VIEW CAMERA**
- 4. RETRACTABLE WATER & AIR REELS WITH CLEANING GUNS**
- 5. JIB CRANE WITH ELECTRIC HOIST**
- 6. LED LIGHTING**
- 7. ADDITIONAL MONITOR**
- 8. HYBRID CABLE REEL**
- 9. HIGH-PRESSURE HOSE REEL**
- 10. ROBOT STORAGE DRAWERS**
- 11. HEATING RADIATOR**
- 12. SLIDING DOOR TO ACCESS OPERATOR STUDIO**
- 13. CLEAN WHITE SIDE LINING**
- 14. HAND SANITIZER**
- 15. WORKBENCH WITH POWER RECEPTACLES**
- 16. TOOLS & EQUIPMENT STORAGE**
- 17. COATED OR COMPOSIT FLOOR**
- 18. STEP BUMPER OR RETRACTABLE STAIRS**
- 19. UNDER CARRIAGE STORAGE BOXES**
- YOUR CUSTOM REQUIREMENTS**



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OPERATOR STUDIO

1. CABINetry
 2. LED LIGHTING
 3. CCTV VICINITY CAMERA SYSTEM
 4. POWER RECEPTABLES
 5. TOUCH SCREEN PC CONTROL UNIT
 6. OPERATOR DESK WITH FLUSH MOUNTED JOYSTICKS
 7. EMERGENCY STOP, LIGHTING AND SYSTEM POWER BUTTONS
 8. BATTERY AND SOLAR POWER CONTROL PANEL
 9. PNEUMATIC (TOP HAT) PACKER CONTROLS
 10. HEATER
 11. COATED FLOOR
 12. CLEAN WHITE WALL LINING
- ROOF MOUNTED AIR CONDITIONER / HEATER
YOUR CUSTOM REQUIREMENTS



“REDUCED EMISSIONS AND FUEL CONSUMPTION”

BATTERY POWERED CUTTING

Sewer Robotics' battery-powered cutting sets feature next-generation LiFePO₄ battery packs with a smart Battery Management System (BMS) and inverter to support full-day cutting operations without running a generator.

Lithium Iron Phosphate (LiFePO₄) batteries represent the latest generation of rechargeable lithium-ion (Li-Ion) batteries. Compared to the more traditional cobalt-based Li-Ion batteries, LiFePO₄ batteries offer a longer cycle life, extended lifespan, better charge efficiency, and improved discharge. Additionally, LiFePO₄ batteries are exceptionally safe and require no maintenance.

SOLAR ENERGY

For extended operation, solar panels can be installed on the roof of the unit to keep the batteries topped off during daylight hours. This enables continuous use even on lighter days, ensuring that the battery power remains optimally charged without the need for external charging sources.

This integration of solar energy enhances the system's sustainability and minimizes charging times and costs.





ENGINE ROOM

- SIDE ACCESS DOOR
 - CABINETRY
 - LED LIGHTING
 - HIGH-PRESSURE UNIT
 - WATER SUPPLY TANK & FILTERS
 - POWER SUPPLIES
 - CLOSED CIRCUIT RADIATOR HEATING SYSTEM WITH THERMOSTAT
 - AIR COMPRESSOR
- YOUR CUSTOM REQUIREMENTS**

***“PLUG-AND-PLAY,
BOX INTEGRATED SYSTEMS”***

SPECIAL PURPOSE

BOX INSTALLATION

Sewer Robotics box installations are built in our factory, with all bells and whistles, to meet our quality standards and your (custom) requirements. Such box integrated system is easily shipped inside a container and installed on a suitable chassis anywhere in the world.



SEWER ROBOTICS BOX INSTALLATION WITH HDM55 UHP UNIT

INTEGRATION ACCESSORIES





JETTING CAPACITY

By adding a jetting pump with hydraulic reel, the same precision cutting vehicle and crew can flush removed materials from the obstruction back to the manhole to increase daily production without requiring an additional jetting truck on site.

The jetting pump and hose reel can be driven by the same engine or PTO that drives the Ultra High Pressure pump.

CUSTOM IS OUR SPECIALTY

We understand the importance to stand out from competition and invite you to share your ideas and custom requirements, so that our engineers can make your ideal equipment or vehicle integration reality.



PACKER CONTROLS

A third joystick and pneumatic (top-hat) packer controls can be added to enhance operator convenience.



PERMANENT VAN INTEGRATION

With sufficient cabinetry, desk-integrated control unit and 27" Touch screen monitor in a laboratory alike operator studio.

SINGLE CABLE ELECTRIC CUTTING

SEWER ROBOTICS electric cutter robots can be used in combination with a single hybrid cable to reach far inside the pipe.





SPECIFICATIONS

MULTI-FUNCTIONAL CRAWLER



SCAN FOR VIDEO

R125 150 - 600MM (6-24")

The multi-functional and heavy-duty, stainless steel, R125 crawler has a very slim, flat-bottom, 100mm (4") body for maximized clearance inside 150mm (6") pipelines.

The R125 features the twist-and-lock mechanism to exchange various job-specific equipment modules within 60 seconds and is compatible with SEWER ROBOTICS' mobile and vehicle integrated control units, cable- and hose reels.



WJ125 WATER JET & HA125 CUTTER

APPLICATIONS

- UHP water jet cutting for the removal of solid obstructions and deposits settled
- Lateral reinstatement & cutting protruding taps
- Installation of Top Hats, Mechanical repair sleeves and other (UV) spot repair patches
- Removing rocks and other items from pipelines with the gripper
- CCTV Inspection



UVP125 UV PACKER

SPECIFICATIONS

Scope of use	: 150 - 600mm (6-24")
Drive	: AWD - Electric
Rotation (pan)	: Infinite - Electric
Length	: 405mm (16")
Body diameter	: 100mm (3.9")
Weight	: 15kg (33lbs)

COMPATIBLE MODULES

- WJ125 Water jet cutting
150 - 600mm (6-24")
- HA125 Lateral reinstatement
150 - 500mm (6-20")
- CCTV Inspection
150-500mm (6-20")
- Gripper
150 - 600mm (6-24")
- UVP125 UV-LED cured patching
150 - 500mm (6-20")

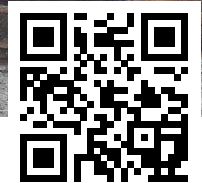
FEATURES

- Twist-and-lock-mechanism
- Heavy-duty stainless steel
- Roll and Pitch sensors (x-y)
- Continuously pressurized
- Pressure sensor
- Rotation sensor
- Temperature sensor

ACCESSORIES

- Wheels and spacers
- Additional weights
- Custom developed modules
- Descaling (or circumferential cutting) tool with adjustable rotating lances

HIGH DEFINITION CCTV INSPECTION

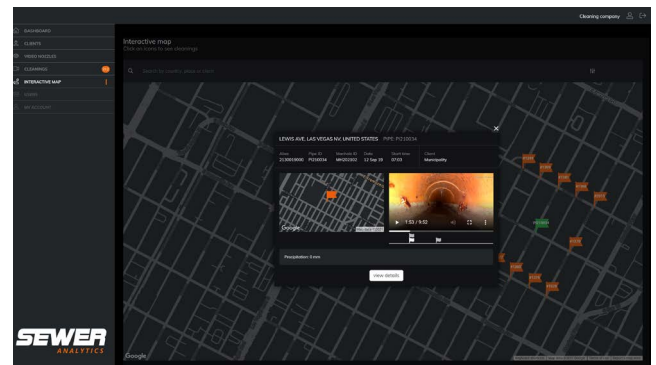


SCAN FOR VIDEO

CAM125HD 150 - 500MM (6-20")

The CAM125 module connects the CAMTRONICS ZRK70 HD Pan & Tilt inspection camera with the Sewer Robotics R125 crawler for quick High-Definition pre- and post inspections.

The CAM125 module features a pan & tilt camera and a pressure adjustable air coupling at the front, operated from the control unit to connect with most available spot repair packers in the market.



SEWER ANALYTICS web app



SPECIFICATIONS

Scope of use	: 150 - 500mm (6-20")
Video	: Analog HD : 1080p, 30fps (recorded)
Internal storage	: 32 GB
Drive	: AWD - Electric
Camera pan	: Infinite
Camera tilt	: 230°
Focus	: Manual
Lighting	: Intensity adjustable LEDs
Location transmitter	: 512 Hz
Inspection software	: SCS (NEN EN 13508) : WINCAN (EN 13508, : WRc, NASSCO) : POSM (NASSCO)
Air pressure	: Max. 10 bar (145psi)
Length	: 158mm (6.2")
Weight	: 1,6kg (3.6lbs)

FEATURES

- Compatible with R125 crawler
- Compatible with SEWER ANALYTICS WEB
- Automatic web synchronization*
- Auto-horizon adjustment
- Single button joint inspection
- Air coupling for spot repair packers
- Camera compatible with push cable for inspection of 100mm (4") pipeline

ACCESSORIES

- Push cable reel for inspections inside 100mm (4") pipelines
- Laser crack measurement
- 512Hz Locator receiver

* Internet connection required

UHP PRECISION WATER JET CUTTING



SCAN FOR VIDEO

WJ125 150 - 600MM (6-24")

High-pressure water jet cutting is the best and most efficient solution for removing solid obstructions and deposits settled.

Water jet cutting uses a targeted high pressure water blast, precisely applied and continuously monitored, to remove roots, cement, grout, concrete, failed liners and mineral deposits without adding damage to the host pipe.



WJ125 WATER JET CUTTER

*"REMOVE ROOTS, CEMENT, GROUT,
CONCRETE, FAILED LINERS AND
MINERAL DEPOSITS"*



UHP CONCRETE REMOVAL

SPECIFICATIONS

Scope of use	: 150 – 600mm (6-24")
Max. pressure	: 3000 bar (43,500 psi)
Movements	: 4-axis
Drive	: AWD – Electric
Rotation (pan)	: 500° – Electric
Ram lift	: 210mm (8")
	: Hydro-pneumatic
Nozzle pivot (tilt)	: 90° – Hydro-pneumatic
Lighting	: Intensity adjustable LEDs
Lens cleaner	: Compressed air
Length	: 350mm (13.7")
Weight	: 5kg (11lbs)

FEATURES

- Compatible with R125 crawler
- Heavy duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- Twist-and-lock mechanism

ACCESSORIES

- Rotary- and pinpoint nozzles with extensions
- Fluid lens cleaner for concrete cutting
- Mixing unit to add root foaming or grease dissolving, additives
- Gripper

LATERAL REINSTATEMENT CUTTING



SCAN FOR VIDEO

HA125 150 - 500MM (6-20")

The HA125 reinstatement cutter has a decent clearance inside relined 150mm (6") pipelines and can be used inside pipelines up to 500mm (20") with its 205 mm (8") ram lift.

The 90-degree cutter motor pivot and ram lift are hydro-pneumatically actuated for maximized durability, force and precision without hydraulics inside the robot.

The durable R125 is easy to service and features a powerful cutter motor, great camera visibility with lens cleaner and very precise and operator friendly controls.

*"THE MOST POWERFUL 150MM (6")
CUTTER ON THE MARKET!"*



CUTTING A CAST IRON TAP

SPECIFICATIONS

Scope of use	: 150 – 500mm (6-20")
Cutting motor	: WM300 - Water : PM300 - Pneumatic : EM300 - Electric
Cutter shaft	: M14 thread
Movements	: 4-axis
Drive	: AWD - Electric
Rotation (pan)	: 500° - Electric
Ram lift	: 205mm (8") : Hydro-pneumatic
Cutter pivot (tilt)	: 90° - Hydro-pneumatic
Lighting	: Intensity adjustable LEDs
Lens cleaner	: Compressed Air : Water
Weight	: 5,1kg (11.2lbs)
Length	: 342mm (13.5")

FEATURES

- Compatible with R125 Crawler
- Heavy-duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- Durable stainless body without delicate exterior parts
- Short design with hinging strain relief for tight manholes
- Maintenance friendly

ACCESSORIES

- M14x2 threaded cutter bits & tools
- Cutter brackets for circumferential and longitudinal cutting
- Packer 'puck' coupling mechanism
- Gripper

SOLID DEBRIS REMOVAL



SCAN FOR VIDEO

GRIPPER

The gripper accessory is compatible with all water driven lateral reinstatement and water jet cutting job-specific modules. It has 3 replaceable 'fingers' that can be closed to grab and remove solid debris and other undesired objects from pipelines.

The closing force of the gripper's fingers is controlled by adjusting the pressure of the high-pressure power pack.



SAVING A ROV FROM A LIVE PIPE



REMOVING A ROCK

COMPATIBLE MODULES

- HA125 Lateral reinstatement
- WJ125 Water jet cutting

- HA195 Lateral reinstatement
- WJ180 Water jet cutting
- WJ200 Water jet cutting

- HA250 Lateral reinstatement
- WJ250 Water jet cutting

FEATURES

- Heavy duty materials
- Adjustable 'fingers' for different sizes and closing angles
- Adjustable closing force via pressure

HIGH DEFINITION CCTV INSPECTION

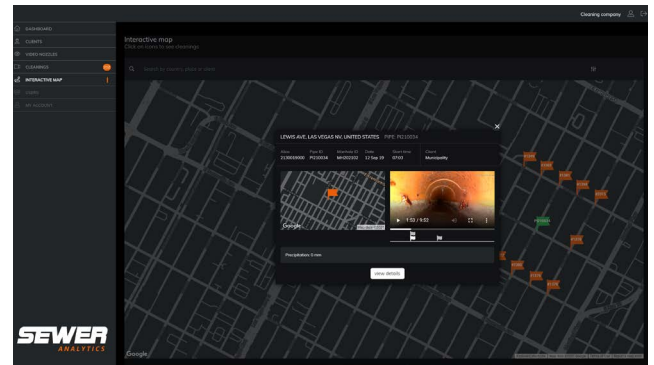


SCAN FOR VIDEO

CAM160HD 200 - 500MM (8-20")

The CAM160 module connects the CAMTRONICS ZRK70 HD Pan & Tilt inspection camera with the Sewer Robotics R160 crawler for quick High-Definition pre- and post inspections with the same robot system that is used for cutting protruding services, solid obstructions removal and lateral reinstatement cutting.

The CAM160 module features a pan & tilt camera and a pressure adjustable air coupling at the front, operated from the control unit to connect with most spot repair packers available in the market.



SEWER ANALYTICS web app



SPECIFICATIONS

Scope of use	: 200 - 500mm (8-20")
Video	: Analog HD : 1080p, 30fps (recorded)
Internal storage	: 32 GB
Drive	: AWD - Electric
Camera pan	: Infinite
Camera tilt	: 230°
Focus	: Manual
Lighting	: Intensity adjustable LEDs
Location transmitter	: 512 Hz
Inspection software	: SCS (NEN EN 13508) : WINCAN (EN 13508, : WRc, NASSCO) : POSM (NASSCO)
Air pressure	: Max. 10 bar (145psi)
Length	: 158mm (6.2")
Weight	: 1,6kg (3.6lbs)

FEATURES

- Compatible with R160 crawler
- Compatible with SEWER ANALYTICS WEB
- Automatic web synchronization*
- Auto-horizon adjustment
- Single button joint inspection
- Air coupling for spot repair packers
- Camera compatible with push cable for inspection from 100mm (4") pipeline

ACCESSORIES

- Push cable reel for inspections inside 100mm (4") pipelines
- Laser crack measurement
- 512Hz locator receiver

* Internet connection required



PACKER DRIVE



SCAN FOR INFO

Y160 200 - 750MM (8-30")

The heavy-duty stainless steel Y160 drivetrain serves as a versatile "Drive Unit," ensuring compatibility with existing spot and connection repair packers. It offers a cost-effective and powerful solution for crawler applications.

Additionally, the Y160 can be used as an auxiliary drive unit to extend reach, or positioned beneath the R160 crawler to access the top of egg-shaped pipelines.

Sharing the same electric drivetrain as the R160 crawler, the "Packer Drive" can also be upgraded for electric reinstatement cutting and the removal of solid obstructions and deposits, aided by a water jet.



EGG-SHAPED PIPES

*"ENDLESS APPLICATIONS AND
UPGRADES AVAILABLE"*



UV SPOT REPAIR PACKER



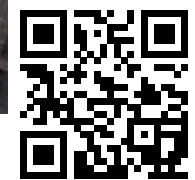
EXTRA DRIVING FORCE

SPECIFICATIONS

Scope of use Circle	: 200 - 750mm (8-30")
Scope of use EGG	: 300 - 450mm (12-18")
	: 400 - 600 mm (16-24")
	: 500 - 750 mm (20-30")
	: 600 - 900mm (24-36")
Drive	: AWD - Electric
Length	: 360mm (14.2 ")
Width	: 125mm (4.9")
Height	: 100mm (3.9")
Weight	: 15kg (33.1lbs)

MULTI-FUNCTIONAL CRAWLER

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SCAN FOR VIDEO

R160 200 – 750MM (8-30")

The heavy duty stainless steel R160 is compatible with various job-specific equipment modules for underground pipe inspection, cleaning, cutting and rehabilitation from lined 200mm (8") pipes and larger with a variety of wheels and spacers.

The modules can be exchanged within 60 seconds due to the twist-and-lock mechanism.



DESCALING TOOL

APPLICATIONS

- UHP water jet cutting for the removal of solid obstructions and deposits settled
- Lateral reinstatement & cutting protruding taps
- Installation of Top Hats and other (UV) spot repair patches
- Removing rocks, debris and other items from pipelines with the gripper
- CCTV Inspection

SPECIFICATIONS

Scope of use	: 200 - 750mm (8-30")
Max. pressure	: 3000 bar (43,500psi)
Drive	: AWD - Electric
Rotation (pan)	: Infinite - Electric
Length	: 440mm (17.3 ")
Body diameter	: 125mm (4.9")
Weight	: 22,3kg (49.2lbs)

COMPATIBLE MODULES

- WJ180 Precision Water Jet Cutting
200 - 500mm (8-20")
- WJ200 Precision Water Jet Cutting
250 - 750mm (10-30")
- HA195 Lateral Reinstatement Cutting
250 - 750mm (10-30")
- CAM160 CCTV Inspection
200 - 500mm (8-20")
- Gripper
250 - 750mm (10-30")

FEATURES

- Twist-and-lock-mechanism
- Heavy-duty stainless steel
- Roll and Pitch sensors (x-y)
- Continuously pressurized
- Pressure sensor
- Rotation sensor
- Temperature sensor

ACCESSORIES

- Wheels and spacers
- Additional weights
- Custom developed modules
- Descaling (or circumferential cutting) tool with adjustable rotating lances

UHP PRECISION WATER JET CUTTING



SCAN FOR VIDEO

WJ200 250 - 750MM (10-30")

The WJ200 UHP water jet cutting module removes root balls, hardened fat, grease, cement, scaling, calcium, mineral build-up and over-poured concrete from within 250 - 750mm (10-30") pipes.

The WJ200 jetting module features 270mm (11") arm lift and 90° nozzle-tilt to ensure the right working angle in large pipelines of up to 750mm (30").

The LED lighting and camera are placed next to the nozzle to see exactly what the nozzle aims at.



WJ200 EGG-SHAPED PIPE SETUP



FAILED CIPP LINER



CONCRETE

SPECIFICATIONS

Scope of use	: 250 - 750mm (10-30")
Max. pressure	: 3000 bar (43,500 psi)
Movements	: 4-axis
Drive	: AWD - Electric
Rotation (pan)	: 500° - Electric
Ram lift	: 270mm (11")
	: Hydro-pneumatic
Nozzle pivot (tilt)	: 90° - Hydro-pneumatic
Camera rotation	: Simultaneous with nozzle
Lighting	: 4 Intensity adjustable LEDs
Lens cleaner	: Compressed air
Length	: 461mm (18.1")
Weight	: 12kg (26.5lbs)

FEATURES

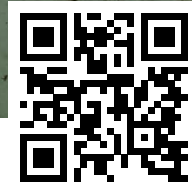
- Compatible with R160 crawler
- Heavy duty materials
- Speed adjustable movements
- Wide angle color camera with sapphire protection lens
- Twist-and-lock mechanism

ACCESSORIES

- Rotary- and pinpoint nozzles with extensions
- Fluid lens cleaner for concrete cutting
- Mixing unit to add root foaming or grease dissolving additives
- Gripper

UHP PRECISION WATER JET CUTTING

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SCAN FOR VIDEO

WJ180 200 – 500MM (8-20")

The WJ180 precision water jet cutting module is compatible with the R160 crawler for removing root balls, hardened fat, grease, cement, scaling, calcium, mineral build-up and over-poured concrete from within 200 – 500mm (8-20") pipes.

The WJ180 features a moving camera, lens cleaner and 90 degrees nozzle lift.

*"THE VERY FIRST WATER JET CUTTING
ROBOT WAS RETIRED IN WORKING
CONDITION AFTER 15 YEARS OF SERVICE"*



WJ180 REMOVING CONCRETE



WJ180 WITH PINPOINT NOZZLE

SPECIFICATIONS

Scope of use	: 200 – 500mm (8-20")
Max. pressure	: 3000 bar (43,500 psi)
Movements	: 3-axis
Drive	: AWD – Electric
Rotation (pan)	: 500° – Electric
Nozzle pivot (tilt)	: 90° – Hydro-pneumatic
Camera rotation	: Simultaneous with nozzle
Lighting	: Intensity adjustable LEDs
Lens cleaner	: Compressed air
Length	: 250mm (9,8")
Weight	: 7,5kg (16.4lbs)

FEATURES

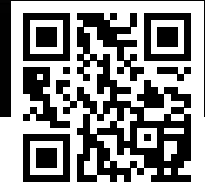
- Compatible with R160 crawler
- Heavy duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- Twist-and-lock mechanism

ACCESSORIES

- Rotary- and pinpoint nozzles with extensions
- Fluid lens cleaner for concrete cutting
- Mixing unit to add root foaming or grease dissolving additives
- Gripper



LATERAL REINSTATEMENT CUTTING



SCAN FOR VIDEO

HA195 250 - 750MM (10-30")

The HA195 reinstatement cutter features an infinite rotating camera with water lens cleaner and on-demand wiper for a clear and unobstructed view while reinstating service connections after lining and cutting protruding laterals and hammer taps of any material from inside 250 – 750mm (10-30") pipelines.

This HA195 reinstatement cutter can be used with the powerful WM500 water driven cutter motor, or -when water jet cutting is not desired- with a pneumatic or silent electric driven cutter motor.

The cutter motor can be easily replaced for a packer coupling mechanism to catch the 'puck' of most readily available spot repair packers.

*"COMPATIBLE WITH MOST TOP HAT
AND (UV) SPOT REPAIR PACKERS"*



HA195 WITH TOP HAT

SPECIFICATIONS

Scope of use	: 250 – 750mm (10-30")
Cutting Motor	: WM500 - Water : AM500 - Pneumatic : EM500 - Electric
Cutter shaft	: M14 thread
Movements	: 4-axis
Rotation (pan)	: 500° - Electric
Ram lift	: 270mm (11") : Hydro pneumatic
Cutter Pivot (tilt)	: 90° - Hydro-pneumatic
Camera Rotation	: Infinite - Electric
Lighting	: 2 Intensity adjustable LEDs
Lens cleaner	: Water : On-demand wiper
Weight	: 12kg (26.5lbs)
Length	: 458mm (18.7")

FEATURES

- Compatible with R160 Crawler
- Coupling mechanism for spot repair packers
- Heavy-duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- Durable stainless body without delicate exterior parts
- Maintenance friendly

ACCESSORIES

- M14x2 threaded cutter bits & tools
- Cutter brackets for circumferential and longitudinal cutting
- Packer 'puck' coupling mechanism
- Gripper

REINSTATEMENT CUTTING AND SPOT REPAIR



SCAN FOR VIDEO

HA200 250 - 750MM (10-30")

The HA200 reinstatement cutter module is equipped with an infinitely rotating camera that offers adjustable height for optimal viewing angles during patching or cutting operations.

This HA200 reinstatement cutter can be used with the powerful WM500 water-driven cutter motor, or, if water jet cutting is not desired, with a silent electric-driven cutter motor (as displayed). Ideal for reinstating service connections after lining and cutting protruding laterals and hammer taps of any material from inside pipelines ranging from 250mm to 750mm (10-30 inches).

Additionally, without a cutter motor, the HA200 can attach to any UV, T-, connection-, or mechanical spot repair packer.

*"OPTIMAL VIEWING ANGLES
DURING PATCHING OR CUTTING"*



HA200 WITHOUT CUTTER MOTOR

SPECIFICATIONS

Scope of use	: 250 – 750mm (10-30")
Cutting Motor	: WM500 – Water : EM500 – Electric : EM1000 – Electric
Cutter shaft	: M14 thread
Movements	: 4-axis
Rotation (pan)	: 500° – Electric
Ram lift	: 270mm (11") : Hydro pneumatic
Cutter Pivot (tilt)	: 90° – Hydro-pneumatic
Camera lift	: 150 mm (5,9 ")
Camera Rotation	: Infinite – Electric
Lighting	: 2 Intensity adjustable LEDs
Lens cleaner	: Water : Air : Wiper
Weight	: 12kg (26.5lbs)
Lenght	: 458mm (18.7")

FEATURES

- Compatible with R160 Crawler
- Height adjustable camera position
- Coupling mechanism for spot repair packers
- Heavy-duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- Durable stainless body without delicate exterior parts
- Maintenance friendly

ACCESSORIES

- M14x2 threaded cutter bits & tools
- Cutter brackets for circumferential and longitudinal cutting
- Packer 'puck' coupling mechanism
- Gripper



MULTI-FUNCTIONAL CRAWLER



SCAN FOR VIDEO

R250 300 - 1000MM (12-40")

The multi-functional and heavy-duty, stainless steel, R250 crawler features an UHP swivel inside the robot to allow infinite rotation.

The various job-specific equipment modules are easily exchanged within 60 seconds for underground pipe inspection, cleaning, cutting and rehabilitation from lined 300mm (12") pipes and larger with a variety of wheels and spacers.

The R250 is compatible with SEWER ROBOTICS' mobile and vehicle integrated control units, cable- and hose reels.

APPLICATIONS

- UHP water jet cutting for the removal of solid obstructions and deposits settled
- Lateral reinstatement & cutting protruding taps
- Installation of Top Hats and other (UV) spot repair patches
- Removing rocks, debris and other items from pipelines with the gripper
- CCTV Inspection



R250 CRAWLER AND WJ250 WATER JET

SPECIFICATIONS

Scope of use	: 300 - 1000mm (12-40")
Max. pressure	: 3000 bar (43,500psi)
Drive	: AWD - Electric
Rotation (pan)	: Infinite - Electric
Length	: 645mm (25.4")
Weight	: 57kg (126lbs)

COMPATIBLE MODULES

- WJ250 Precision Water Jet Cutting
300 - 1000mm (12-40")
- HA250 Lateral Reinstatement Cutting
300 - 1000mm (12-40")
- CAM250 CCTV Inspection
300 - 1000mm (12-40")
- Gripper
300 - 1000mm (12-40")

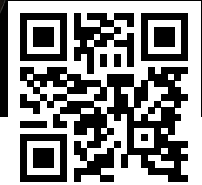
FEATURES

- Twist-and-lock-mechanism
- Heavy-duty stainless steel
- Roll and Pitch sensors (x-y)
- Continuously pressurized
- Pressure sensor
- Rotation sensor
- Temperature sensor

ACCESSORIES

- Wheels and spacers
- Additional weights
- Auxiliary lighting
- Auxiliary camera with 180° rotation for looking forward and backward
- Descaling (or circumferential cutting) tool with adjustable rotating lances

UHP PRECISION WATER JET CUTTING



SCAN FOR VIDEO

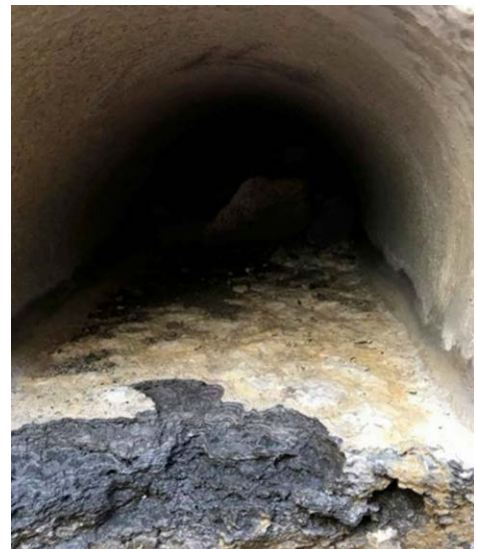
WJ250 300 - 1000MM (12-40")

The WJ250 water jet cutting robot can be used for fast and powerful solid obstructions removal inside 300 – 1000mm (12-40") sewer-, storm- and water pipelines with its 520mm (20") ram lift and 90 degree nozzle pivot.

This beast features infinite rotation while precisely applying a water blast of max. 3000 bar (43,500psi) for controlled removal of tree roots, solidified fat, grease, grout, cement, tuberculation, scaling, grout, cement, failed liner, calcium, mineral deposits and concrete to avoid costly pipeline replacement.



WJ250



MINERAL BUILD-UP

SPECIFICATIONS

Scope of use	: 300 - 1000mm (12-40")
Max. pressure	: 3000 bar (43,500psi)
Movements	: 4-axis
Drive	: AWD – Electric
Rotation (pan)	: Infinite - Electric
Ram lift	: 520mm (20")
	: Hydro-pneumatic
Nozzle pivot (tilt)	: 90° - Hydro-pneumatic
Camera rotation	: Simultaneous with nozzle
Lighting	: 4 Intensity adjustable LEDs
Lens cleaner	: Compressed air
Length	: 650mm (23.6")
Weight	: 35kg (77lbs)

FEATURES

- Compatible with R250 crawler
- Heavy duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens
- No external UHP hoses

ACCESSORIES

- Rotary- and pinpoint nozzles with extensions
- Fluid lens cleaner for concrete cutting
- Mixing unit to add root foaming or grease dissolving additives
- Gripper



LATERAL REINSTATEMENT CUTTING



SCAN FOR VIDEO

HA250 300 - 1000MM (12-40")

The HA250 is the most powerful and durable robot available for reinstating service connections after CIPP relining and cutting protruding laterals and hammer taps of any material from inside 300 – 1000mm (10-40") pipelines.

This beast is strong enough to pull a 9 ton truck and features infinite rotation, great camera visibility with both a water lens cleaner and on demand lens wiper, and very precise and operator friendly controls.



HA250

SPECIFICATIONS

Scope of use	: 300 - 1000mm (12-40")
Cutter motor	: WM500 Water : PM500 Pneumatic : EM500 Electric
Cutter shaft	: M14 thread
Movements	: 4-axis
Drive	: AWD – Electric
Rotation (pan)	: Infinite - Electric
Ram lift	: 325mm (13") : Hydro-pneumatic
Cutter pivot (tilt)	: 90° - Hydro-pneumatic
Camera rotation	: Infinite - Electric
Lighting	: 4 Intensity adjustable LEDs
Lens cleaner	: Water : On-demand wiper
Length	: 605mm (23.6")
Weight	: 25kg (77lbs)

FEATURES

- Compatible with R250 crawler
- Heavy duty materials
- Speed adjustable movements
- Wide angle color camera with Sapphire protection lens

ACCESSORIES

- M14x2 threaded cutter bits & tools
- Cutter brackets for circumferential and longitudinal cutting
- Packer 'puck' coupling mechanism with manometer(s)
- Gripper

The VRM100 mixing unit allows precise dosing of root control, grease removal and other additives for controlled spot treatments with precision water jet cutting equipment. The modular dosing unit is compatible with all precision water jet cutting modules and installed between high-pressure unit and hose reel. Operation takes place from the control unit and special software.

ROOT CONTROL

By using chemical root control you can remove roots further inside service laterals and inhibit their growth without having to fill the complete line with foam.

GREASE REMOVAL

Adding a grease remover encapsulates and dis-solves fats, oils and greases to remove blockages and prevent recollection and settlements further down the line.

MIXING UNIT VRM100



SPECIFICATIONS

Compatible with	: All precision water jet cutting modules (WJ125, WJ180, WJ200 and WJ250)
Dimensions	: 300x500x900mm (20x12x32")

PRO'S

- Efficient spot treatment
- Powerful root removal
- Inhibit root growth



UV PATCHING & SPOT REPAIR



SCAN FOR VIDEO

UVP125 150 – 500MM (6 – 20")

The UVP125 packer is made for rapid renovation from inside pipes made of concrete, steel, reinforced concrete, fibre cement, cast iron or PVC. Longer damages can be rehabilitated by overlapping patches.

The Ultra Violet LED light-train has a low power consumption and is suitable for pipes of differing diameters from 150 to 500mm (6-20") by easily exchanging the end-discs and bladders of the packer.

The UVP125 has a forward facing camera with LED ring and a variety of sensors inside to monitor the air pressure and curing temperature inside the bladder. And to measure the inflation and deformation inside the bladder.

The UV-packer can be used as an equipment module for the R125 crawler, or as stand-alone to be used with a cable, push rods or a suitable CCTV crawler.



WATER INFILTRATION



OVERLAPPING PATCHES

SPECIFICATIONS

Scope of use	: 150 – 500mm (6-20")
Curing time	: 6 – 10 Minutes
Power	: 100-230V, 50-60Hz
Max. pressure	: 2,5bar (360psi)
Renovation lengths	: 600mm (24") Standard
	: 900mm (36")
	: 1200mm (48")
	: Custom length

Data logging:	: Air pressure
	: Deformation
	: Curing temperature

FEATURES

- Compatible with the Sewer Robotics system
- Time-saving preparation
- No on-site mixing of resins and impregnation
- Independent of temperatures: all-year operation possible
- High adhesive tensile strength
- Low shrinking characteristics

ACCESSORIES

- Pan & tilt CCTV Inspection camera
- Packer 'puck' coupling mechanism
- Hinging joint connection
- Push rods
- Air control box

***"3 MINUTES
PREPARATION TIME,
8 MINUTES CURING TIME"***



The UV-cured FIBALITE material is light curing glass reinforced polyester (G.R.P.), manufactured in a sheet form comprising a matrix of polyester resin, E-type glass reinforcement, special inert fillers and photoinitiator, sandwiched between two thin nylon protection films. The upper film, which is permeable for UV-light, stays during the application (with the exception of the overlap). Extra advantage is the very low emission of styrene and glass fibre particles during storage, transport and application.

The material is available in two thickness options: 1.5mm or 2.0mm. It can be installed either as a single layer with a thickness of 1.5mm or 2.0mm, or as a double layer stack with a minimum thickness of 3mm or 4mm.

PRO'S

- SUPER FAST PREPARATION
- ALWAYS THE RIGHT DIAMETER PATCH
- SINGLE STOCK SOLUTION
- MINIMAL WORKING SPACE REQUIRED
- HIGH STRENGTH
- HIGH FLEXIBILITY AT OFF-SET JOINTS
- NO ON-SITE MIXING OF RESINS AND IMPREGNATION



***"INDEPENDENTLY TESTED
ACCORDING ASTM D790
& ASTM F1216"***



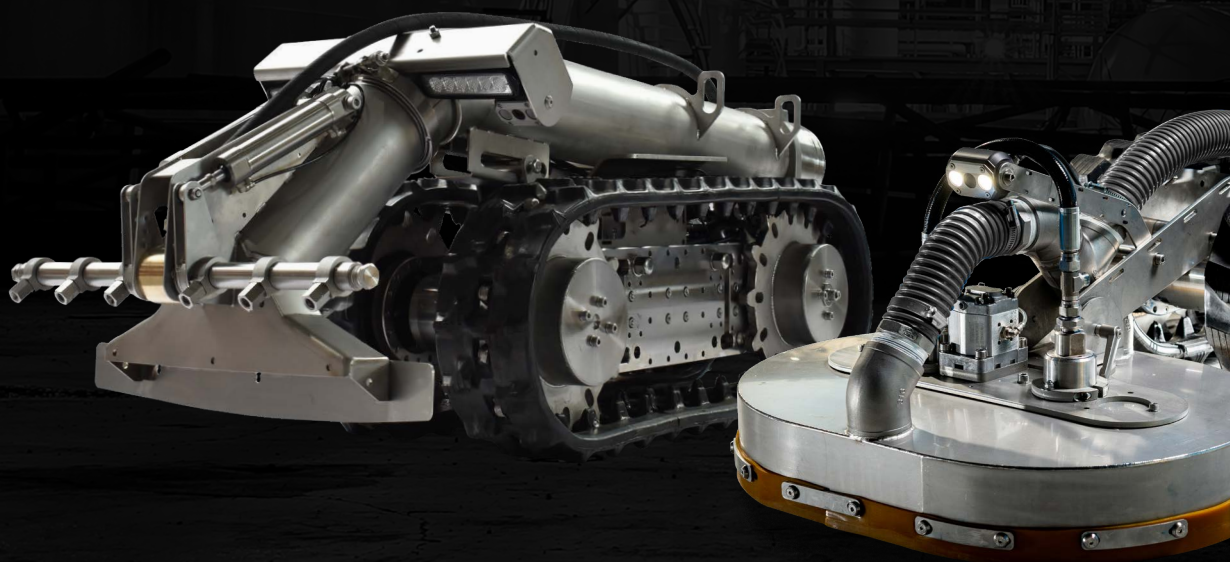
**UV PATCH DISPENSER FOR
LINER MATERIAL ON A ROLL**

UV LINER ON A ROLL

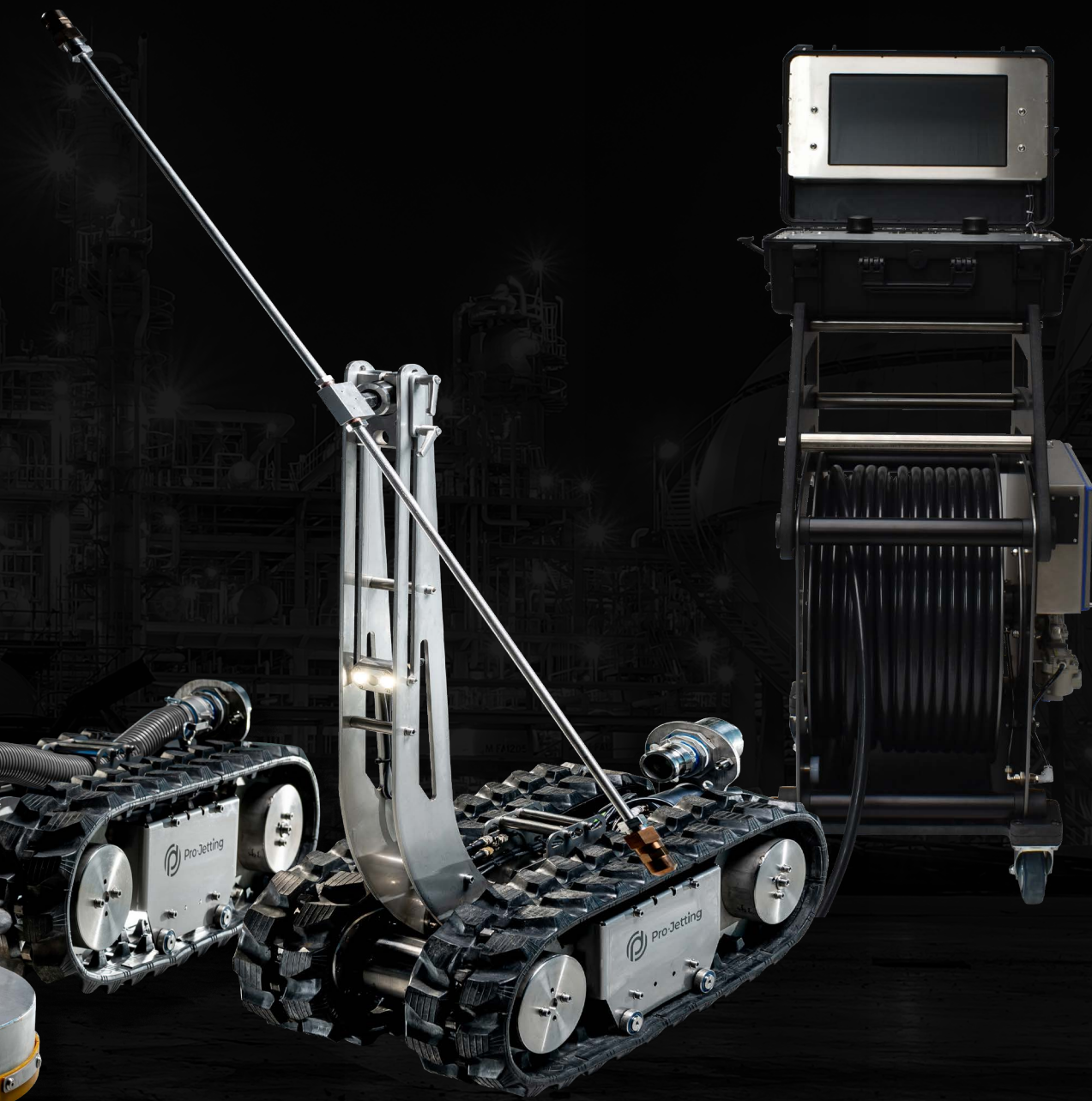
The UV-cured liner material is supplied on 600mm (24") wide rolls. The roll is placed in the dispenser, which is designed to easily cut the liner at the right size, remove the protection film and load it on the packer by a single person in 3 minutes.

- | | |
|-----------------------------|---|
| ■ Reinforcement | : E-glass fibers (±70%) |
| ■ Resin | : UV curing ISO Polyester |
| ■ Adhesion properties | : >10 MPa (to steel, shot blast) (ASTM D4541) |
| ■ Adhesive modulus | : 3,8 GPa (ISO 527-2) |
| ■ Thickness | : 1,5/ 2,0 / 3,0 / 4,0 mm |
| ■ Adhesive tensile strength | : ≥ 90MPa (ISO 527-2) |
| ■ Flexural strength | : 20,486psi (ASTM D790) |
| ■ Flexural modulus | : 1,451,692psi (ASTM D790) |
| ■ Roll length | : 10m (33') |
| ■ Roll width (Patch length) | : 600mm (24") |
| ■ Shipping dimensions | : 750x260x270mm (29.5x10.2x10.6") |
| ■ Shipping weight | : 20kg (44LBS) |

INDUSTRIAL ROBOTICS



***“MODULAR BUILT, FOR A VARIETY OF
APPLICATIONS, INCLUDING YOUR
CUSTOM APPLICATIONS”***



***“CLEANING OF (SEA)WATER INTAKES,
HORIZONTAL TANKS, & PIPELINES”***

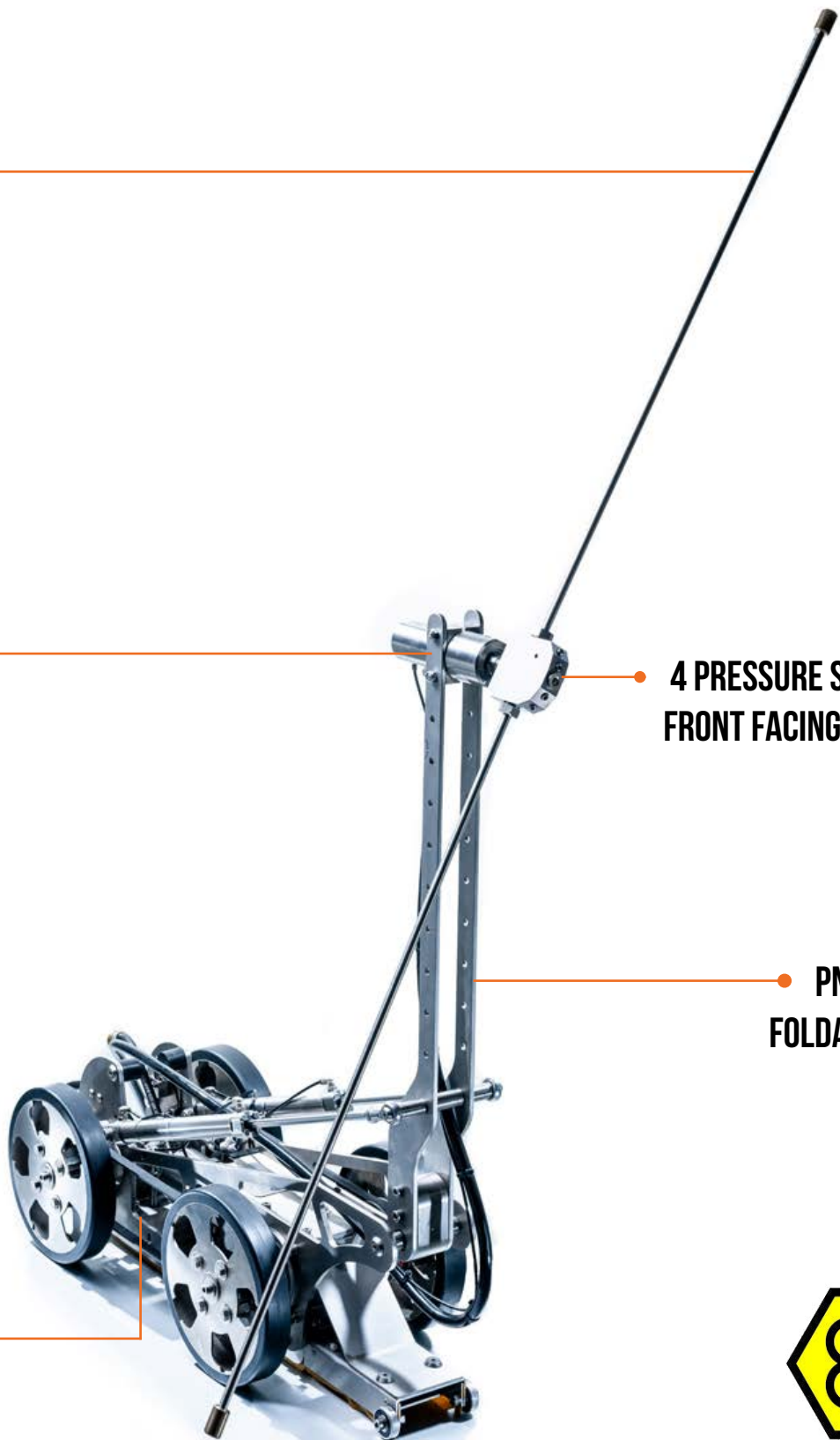
**EXCHANGEABLE
LANCES**

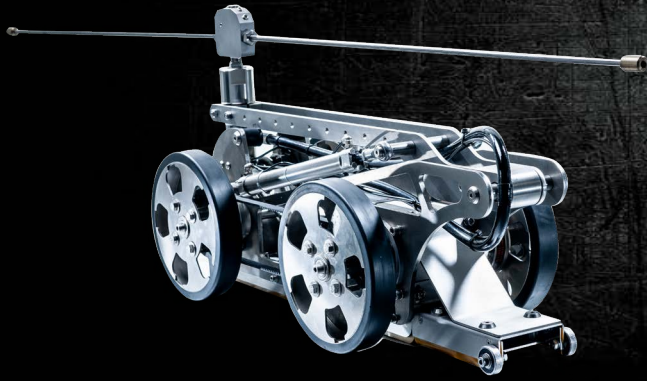
**HIGH PRESSURE
SWIVEL**

**4 PRESSURE SWITCHED
FRONT FACING NOZZLES**

**PNEUMATIC
FOLDABLE ARM**

**ELECTRIC,
PNEUMATIC OR
WATER DRIVEN**





LARGE DIAMETER PIPE & TANK CLEANING

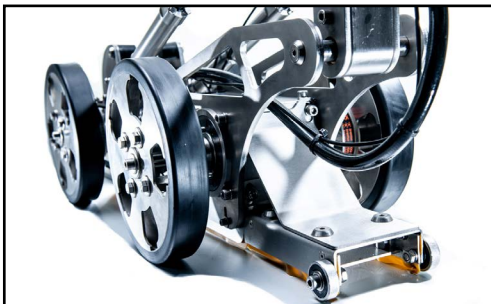


SCAN FOR VIDEO

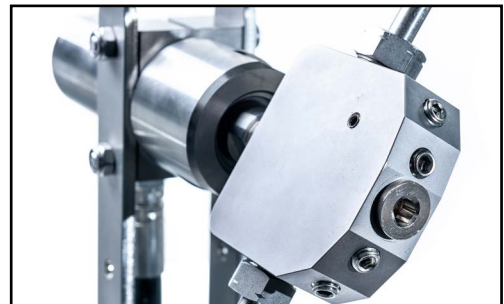
TWK300 1000 - 3000MM (40-120")

The TWK300 tank cleaning robot has a pneumatic foldable arm to fit 400mm (16") manholes, and exchangeable lances for intense cleaning, close to the surface of 1000 to 3000 mm (40 - 120") tanks and pipes.

The TWK300 is available with pneumatic or water hydraulic drives to comply with Atex Zone 0 or with electric drives to reach far inside large diameter pipelines or seawater intakes and full compatibility with other SEWER ROBOTICS and PRO-JETTING robot cable reels and control systems.



DEBRIS REMOVAL ADAPTER



FORWARD FACING NOZZLES

SPECIFICATIONS

- Scope of use : 1000 - 3000mm (40-120")
- Min. access diameter: 400mm (15,7")
- Drive : Electric
: Pneumatic (ATEX)
: Water hydraulic (ATEX)
- Max. pressure : 500bar (7,250psi) (ATEX)
: 3000 bar (40,300psi)
- Max. flow : 21GPM (80LPM)
- Max. rotation : 1000 RPM
- Max. temperature : 90°C (194°F)
- Weight : 45kg (99lbs)
- Dimensions : 850x350x400mm
(33.5x14x 16")

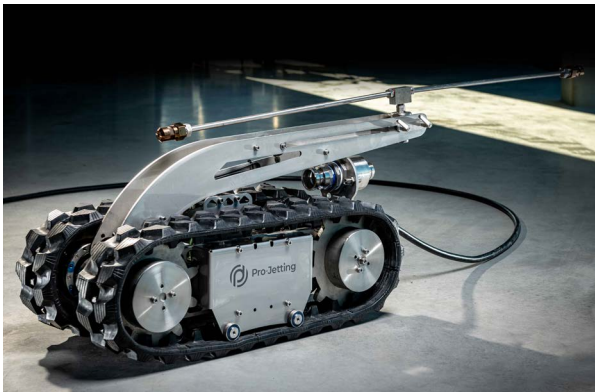
FEATURES

- Exchangeable lances for intense cleaning close to the surface
- Pressure switched forward-facing nozzles for cleaning tank heads
- Pneumatic foldable arm to fit 400mm (16") access points
- Electric driven for compatibility with other SEWER ROBOTICS and PRO-JETTING robot systems

OPTIONS

- Camera module(s)
- Adapter for vacuum debris removal
- Hot water compatibility
- Certified Atex explosion Zone 1 or Zone 0

***“THE **R600** INDUSTRIAL CLEANING ROBOT
IS COMPATIBLE WITH THE SAME CONTROL UNIT
AND CABLE REEL AS THE SEWER ROBOTS”***



MULTI-PURPOSE

Various job-specific modules can be easily exchanged to adapt the robot for different applications via its twist-and-lock mechanism.



HYDRO-PNEUMATIC ACTUATOR

The R600 has a powerful linear actuator to raise the boom, cleaning arm or dome.

This actuator is operated with compressed air and features an enclosed hydraulic circuit to combine strength and precision.

FULLY CUSTOMIZABLE

The R600's programmable outputs allow easy customization for specialty jobs. Add auxiliary cameras and lighting, additional sensors and electronic- or pneumatic driven movements.

-Or- a completely custom tool can be developed for your specific application.



REAR VIEW CAMERA

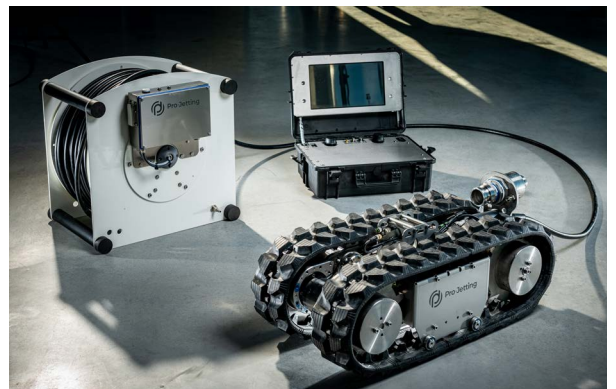
Rear view camera and convenient connections for power- and job-specific supplies to minimize setup times.

POWERFUL DRIVE

The modular base platform is made off durable stainless steel and adjustable in length and width to adjust to various applications.

DURABLE & MODULAR BASE

The powerful R600 can be equipped with either 2 or 4 driving motors that provide 150 or 300 KG towing capacity to take a heavy load or reach far inside pipelines or tanks.



FROM OUR SHOP TO YOUR JOB

Aluminium skid for convenient storage and shipping of the mobile R600 system.

EFU-T3-00 - EURO PALLET SKID

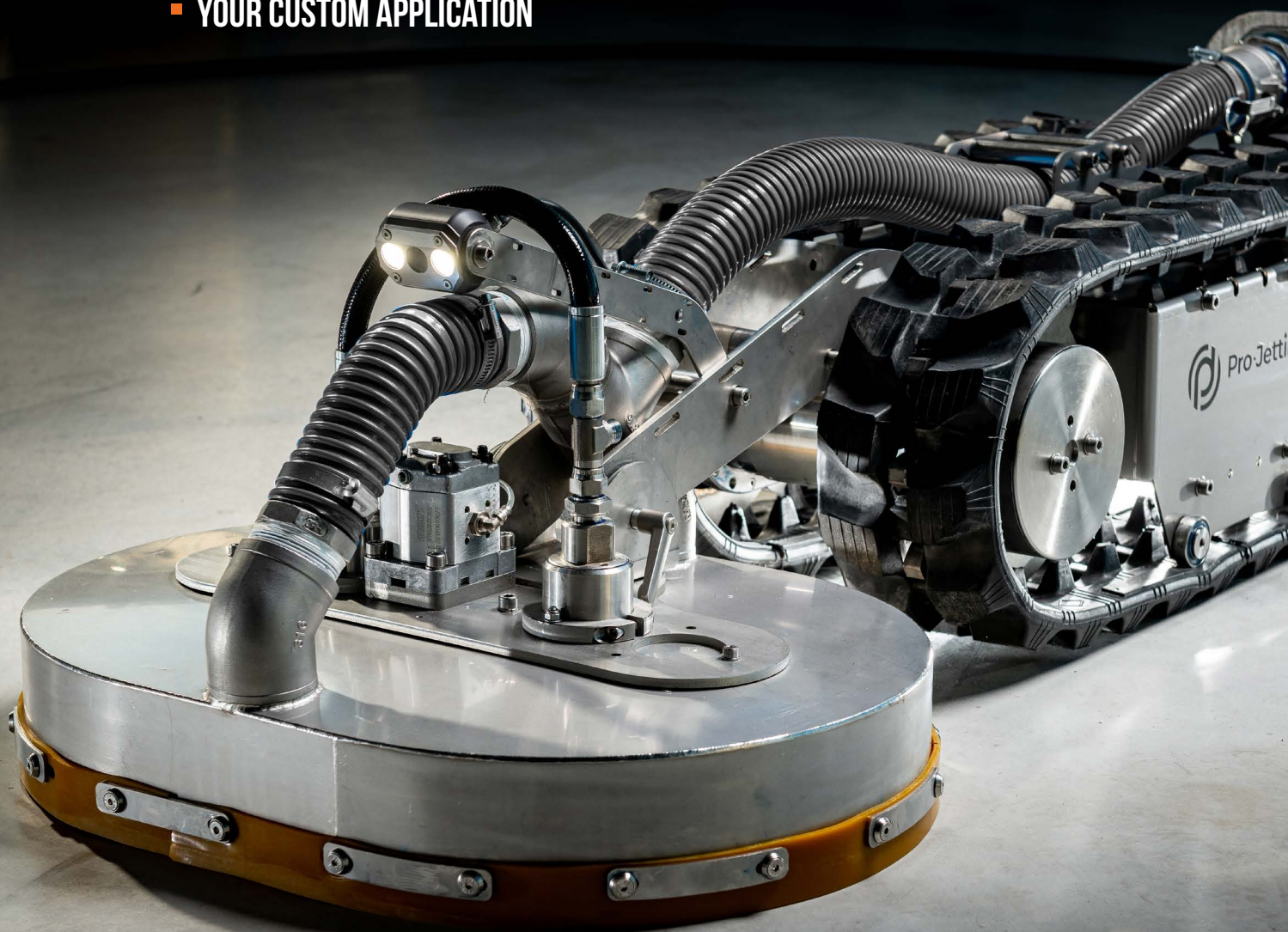
- Aluminum skid
- Front and side access door to the reel
- Foldable R600 ramp
- Pull out ramp extension
- Pull out tray with rollers for control unit
- Pull out trays for spare parts and hand tools
- Stacked hybrid cable and high pressure hose reels
- AIRPREP300 integrated
- Side cover plates with possibility to lock the case
- Dimensions : 1400X860X1550 mm (55.1x33.9x61")
- Weight : 550kg (1210 lbs) including equipment



***“PROGRAMMABLE OUTPUTS ALLOW
EASY **CUSTOMIZATION** FOR SPECIALTY JOBS”***

APPLICATIONS

- SURFACE PREPARATION & REMOVAL OF MARKINGS OR STRIPING
- VACUUM EXCAVATION & SLUDGE OR BULK WASTE REMOVAL
- LARGE DIAMETER PIPE & TANK CLEANING
- NON-ENTRY WELDING
- COLD CUTTING & (ULTRA) HIGH PRESSURE JETTING
- YOUR CUSTOM APPLICATION



SC600DVAC

HIGH PRESSURE JETTING AND VACUUM ROBOT

LIFTING EYES

Lifting eyes for lifting the R600 industrial robot vertically through manholes with an access diameter of 600mm (24") or larger.

CAMERA

Up to a maximum of 3 cameras mounted at the front and rear mounted cameras with auxiliary lighting

STAINLESS STEEL SUCTION PIPE

Hydro-pneumatic liftable 6-inch stainless steel vacuum pipe. Optionally available in different pipe diameters.

180° SWIVELING NOZZLE BAR

Pneumatic driven nozzle bar. As standard for 6 forward fan jets or oscillating nozzles and 2 side nozzles.

- Max. 150LPM at 1000BAR - 1/2" (39.6GPM @ 14500PSI-1/2")

- Max. 350LPM at 250BAR - 1" (3645PSI @ 92.5GPM-1")

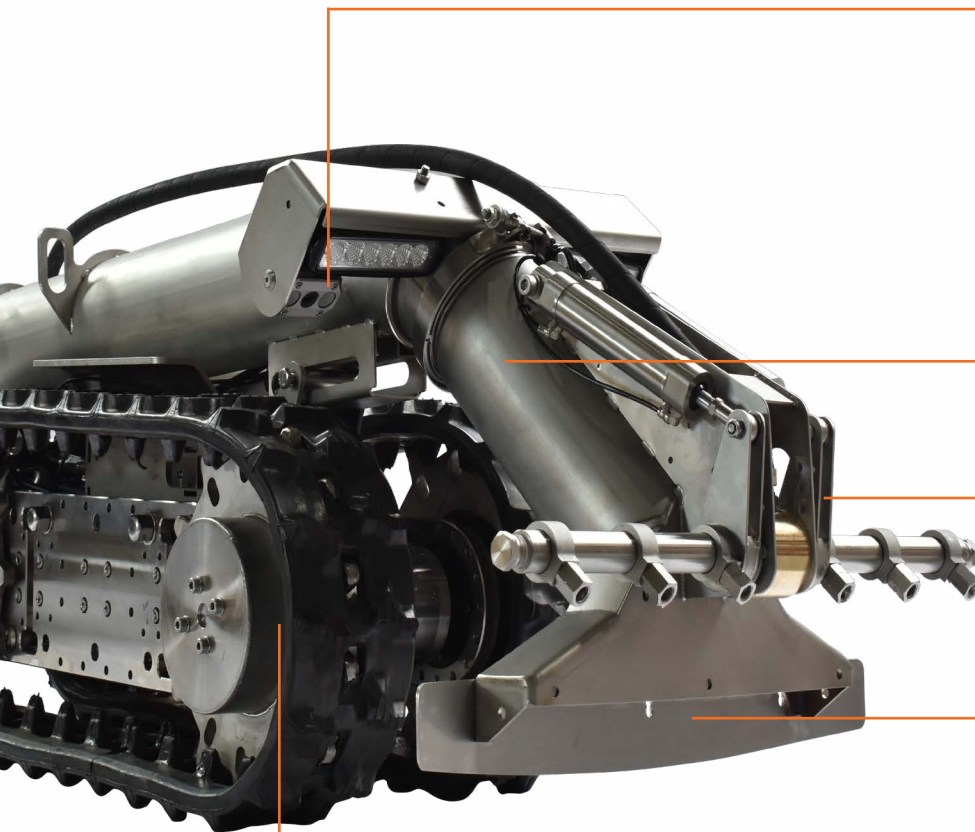
SUCTION NOZZLE

Suction nozzle with exchangeable back plates to adjust to different pipe diameters or applications.

DRIVETRAIN

Steerable electric drivetrain with standard 2 motors. Optionally 4 motors can be used.

R600VAC WITH SPRAY BAR





TRACKED INDUSTRIAL CLEANING ROBOT

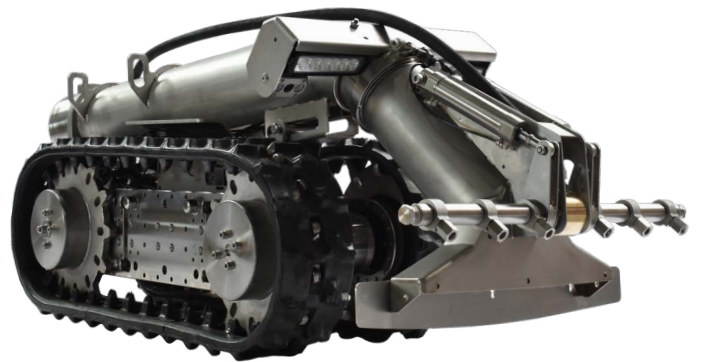


SCAN FOR VIDEO

R600 >500MM (>20")

The R600 is a powerful and multi-functional modular robot crawler that can be used with various job-specific modules for heavy-duty industrial applications.

The R600 is compatible and easy exchangeable with the SEWER ROBOTICS mobile cable reel and control unit for a very small footprint or can be used in combination with a special purpose vehicle installed system.



R600VAC WITH SPRAY BAR

SPECIFICATIONS

Scope of use	: >500MM (>20")
Cameras	: Forward facing : Rear view
Lighting	: Intensity adjustable LEDs
Speed	: 3 - 10kmh (1.9-6.2mph)
Traction Force	: 250kg (330lbs) 2 motors : 500kg (660lbs) 4 motors
Weight	: 110kg (243lbs)
Dimensions	: 900x420x300mm (35.4x16.5x11.8")

COMPATIBLE MODULES

- VAC600 – Vacuum Excavation & Sludge removal
- SC600DVAC – Dual Surface Cleaner with Vacuum
- TWK600 – Large diameter pipe and tank cleaning
- WJ600 – Precision Water Jet Cutting
- Your custom module

FEATURES

- Easy exchangeable job-specific modules
- Heavy-duty stainless steel
- Wide angle color camera with Sapphire protection lens
- Adjustable length and width
- Single, lightweight, hybrid cable
- Programmable outputs for customization

OPTIONS

- Additional sensors
- Auxiliary cameras and lighting
- Electronic- or pneumatic driven features
- Customization and development of job-specific modules

C70

CAMERA NOZZLE



AI AUTOMATIC DETECTED DEFECTS



***“COLLECT **VALUABLE INTELLIGENCE**
AT LOW COSTS & MINIMUM EFFORT
WHILE CLEANING”***



SUPERIOR VIDEO

The auto-upright, High-Definition camera is protected by stacked Sapphire lenses and records always from a perfect horizontal position.

PERFECTLY HORIZONTAL VIDEO

Mechanical self-leveling keeps the camera at a perfect horizontal position without eliminating pixels.



EXTREMELY DURABLE

The Stainless housing and stacked, Sapphire, lenses withstand impacts from rocks, concrete deposits and a good swing into the pipe.

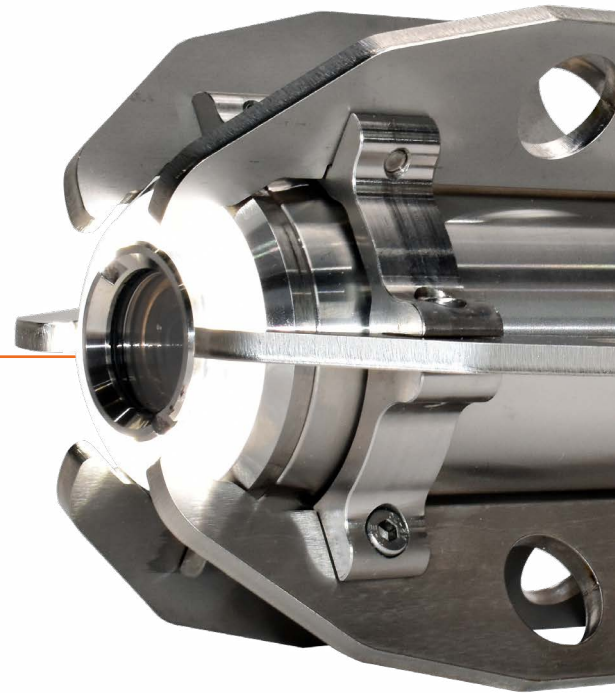
10 HOURS RUNTIME

The Lithium-Ion battery pack is rapidly charged and lasts as long as a good 10 hour working day.



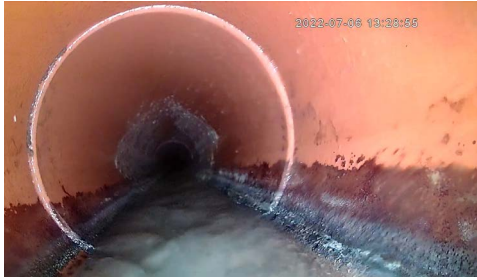
AUTOMATIC RECORDING

A built-in high pressure switch activates 8 super bright LED's and automatically starts the recording without interrupting the cleaner's workflow.



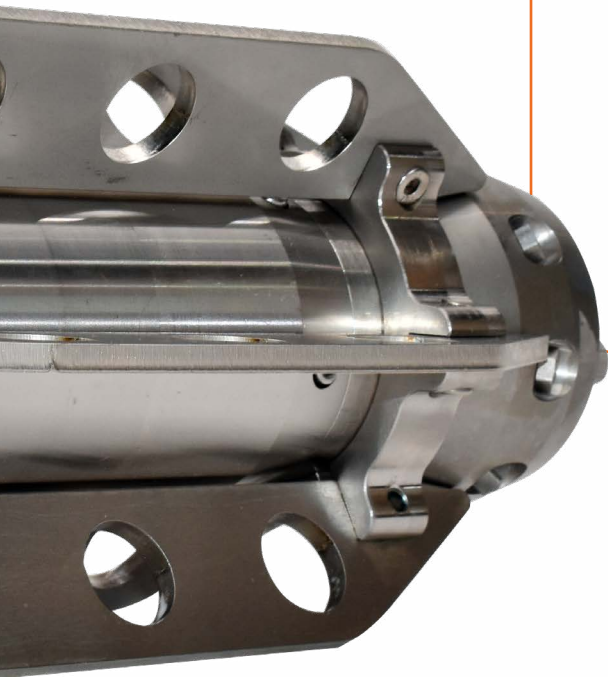
WIDE APPLICATION RANGE

Various easy exchangeable skids are available to keep the video nozzle at the right position inside 150 – 1000mm (6 – 40") pipelines.



GREAT CLEANING CAPACITY

Great cleaning and debris transportation with 8x 55° & 4x 20° exchangeable Ceramic jets. (Other nozzle configurations available)

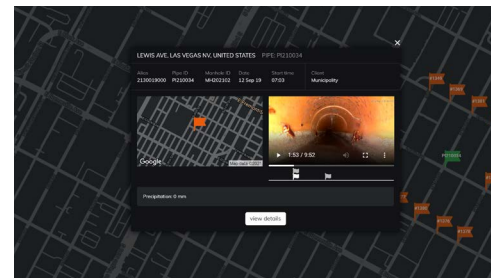


FOR ANY TRUCK

The stand-alone C70 camera nozzle threads onto any jetting hose.

NO BUTTONS NOR FLASH DRIVES

WIFI communication between nozzle and tablet for wireless operation and video downloading from the nozzle and uploading to the cloud.



SEWER ANALYTICS WEB CLOUD

Login to SewerAnalytics.com to review videos, add header information and observations, prioritize next actions and share cleaning reports with customers.



AI AUTOMATIC DEFECT CODING

Reliable artificial intelligence software that automatically codes and classifies defects according international CCTV inspection standards.

DASHBOARD

CLIENTS

VIDEO NOZZLES

CLEANINGS

INTERACTIVE MAP

USERS

MY ACCOUNT

SEWER ANALYTICS

Interactive map

Click on icons to see cleanings

Search by country, place or client

LEWIS AVE, LAS VEGAS NV, UNITED STATES

Area: 2130339000

Pipe ID: P210034

Manhole ID: MH020302

Date: 12 Sep 19

Worktime: 07:03

Client: Municipality

Google

1:53 / 9:52

view details

INTERACTIVE MAP

DASHBOARD

CLIENTS

VIDEO NOZZLES

CLEANINGS

INTERACTIVE MAP

USERS

MY ACCOUNT

SEWER ANALYTICS

Lewis Ave, Las Vegas NV, United States

#2037 Pipe reference: P210034

Date: September 12, 2019

Client organization: Municipality

Cleaning organization: Cleaning company

Video

1:54 / 9:52

Take snapshot

current frame

Position observation

Code

BAB - Structural - Focus

C - Fracture

Choose

Description

Save

Save & add another

ADD OBSERVATIONS

DASHBOARD

CLIENTS

VIDEO NOZZLES

CLEANING

INTERACTIVE MAP

USERS

MY ACCOUNT

SEWER ANALYTICS

Pipe details

Pipe Height / Diameter

300

Pipe Width

Not required when both dimensions are the same - <

Pipe Material

Clay

Other material

Pipe Shape

Circular

Other shape

Start Manhole ID

MH020300

Pipe ID

P210034

Pipe length (ft)

50-62

End Manhole ID

MH020302

Manhole start coordinates

36.1632528794711, -115.1371812360053

Location type

A - In a road

Other location type

Manhole end coordinates

36.16305994732399, -115.13667295739221

Direction

Upstream

Sewer usage

C - Combined drain or sewer

Other usage

Address (optional)

Lewis Ave, Las Vegas NV, United States

Hoste sewer system

Sewer type

A - Gravity drain or sewer

Neighbourhood

City

Las Vegas

Cleaning details

Type of debris

A - Fat

Debris level

A - 0% <resuspension on 10%

Manhole water level

A - 0-10% of pipe height

Purpose

A - Routine clearing

Other purposes

Priority

No priority

ADD HEADER INFO & PRIORITIZE

#397

“LOGIN TO **SEWER ANALYTICS** TO ACCESS CLEANINGS”

- + REVIEW VIDEOS
- + ADD HEADER INFO
- + ADD MANUAL OBSERVATIONS
- + AI AUTOMATIC INSPECTION
- + PRIORITIZE CLEANINGS
- + SHARE CLEANING INFO WITH CUSTOMERS

“THE FUTURE STARTS TODAY”

With reliable artificial intelligence software that automatically analyses your cleaning videos by coding and classifying defects according international CCTV inspection standards.

Your analysed cleanings are conveniently organized and prioritized in Sewer Analytics. Ready for decisions making.



AI AUTOMATIC DETECTED DEFECTS



AI AUTOMATIC DETECTED DEFECTS

#397



**SCAN FOR DEMO
ACCOUNT**

DASHBOARD

CLIENTS

VIDEO NOZZLES

CLEANINGS 2779

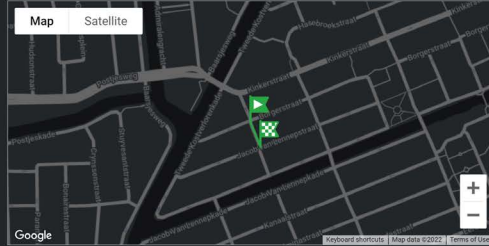
INTERACTIVE MAP

ORDERS

MY ACCOUNT

MY ORDERS

Location



Click the marker above and click the location of the end point to add it. Click again, at the location of the starting point to change it.

Reset

Video



AI Inspected

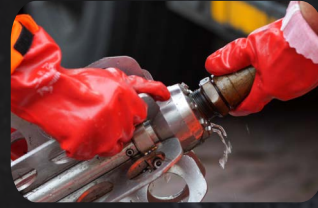
Add observation

Observations (9)

Time	Code	Classification	Description	Images
00:01:16	BBFD	5	Infiltration, gushing (D) entering under pressure.,	
00:01:16	BBBB	3	Attached deposits, grease (B),	
00:01:19	BBFD	5	Infiltration, gushing (D) entering under pressure.,	
00:01:19	BBBB	3*	Attached deposits, grease (B),	

SEWER ANALYTICS WEB CLOUD

C70 CLEANING WORKFLOW



The Sewer Robotics C70 video nozzle is compatible with any jetting truck and easily threaded on the jetting hose.

The pipe segment is cleaned with the C70 camera nozzle

Based on the cleaning (what cleaning operator, sees, feels, smells and hears)

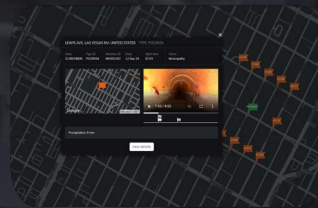
No anomaly suspected

Anomaly suspected

The video is watched to determine next actions



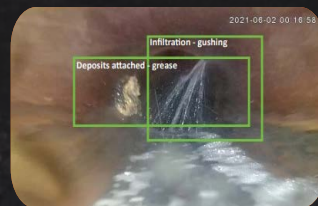
The cleaning video is downloaded and watched for an immediate pipe status report and to determine the next actions (e.g. the pipe needs more cleaning, or a different solution is required).



Back at the depot, the cleaning videos are automatically uploaded to Sewer Analytics with date, time and GPS coordinates while the C70 and tablet are charging.

AT THE END OF THE DAY

All videos are synchronized and uploaded to the Sewer Analytics cloud

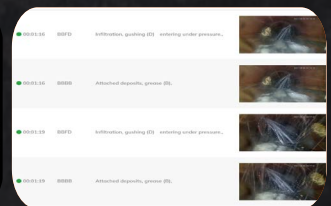
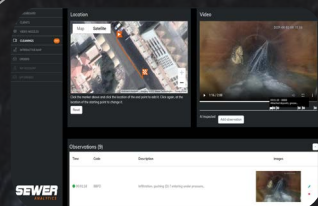


The cleaning videos are automatically inspected by AI and defects are coded and prioritized according international CCTV standards.

The videos are watched or automatically inspected by AI

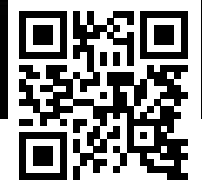
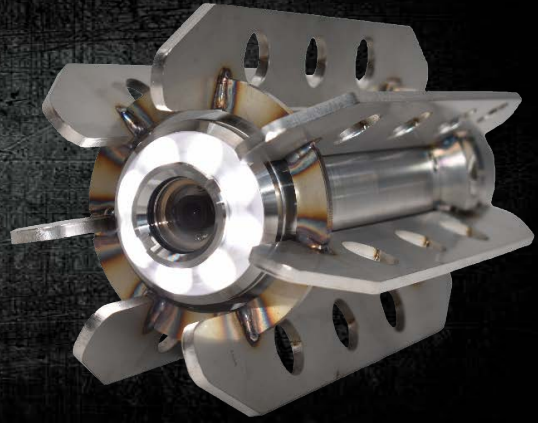
THE NEXT MORNING

Coded and prioritized cleaning data is ready for making decisions



C70

CAMERA NOZZLE



SCAN FOR VIDEO

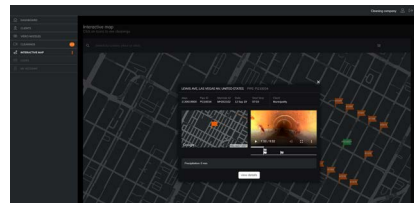
C70 150 - 1000MM (6-40")

The durable C70 Camera nozzle easily threads onto any jetting hose to help cleaning crews and asset managers record High Definition, auto-upright, video at low-cost during pipe cleaning operations.

Once the pipe is cleaned, the video is downloaded with a single touch of a button and automatically uploaded to the Sewer Analytics web cloud, together with the date, time and GPS location of the cleanings.



C70 SKIDS



SEWER ANALYTICS WEB CLOUD

SPECIFICATIONS

Scope of use	: 150 – 1000mm (6-40")
Pressure	: 125 – 275bar (2000-4000psi) : Up to 3000bar (43,500psi) ¹
Flow	: 80 – 650 LPM (21-170GPM)
Hose connection	: ¾, 1 and 1¼" BSP & NPT
Video	: Self leveling, High-Definition, MP4
Camera	: CMOS, 1980x1080 or 1280x720
Internal storage	: 32 Gb
Cleaning	: 8x 55° & 4x 20° jets with Ceramic orifices : Other nozzles (optional)
Housing	: Durable, Stainless-steel
Protection lenses	: 2 Sapphire lenses, stacked
Lighting	: 7 intensity adjustable superbright LED's
Battery	: Lithium-Ion battery pack : 10+ hours battery runtime : 3 hours charge time
Weight	: 6,2kg (13,7 Lbs) ²
Dimensions	: D90x295mm (D3.5x11.6") ²
Tablet	: 8", Rugged, IP67 : Windows® operated : GPS receiver

FEATURES

- Pressure activated lighting
- Pressure activated recording
- Wireless operation & video downloading
- Great cleaning, thrust and debris removal

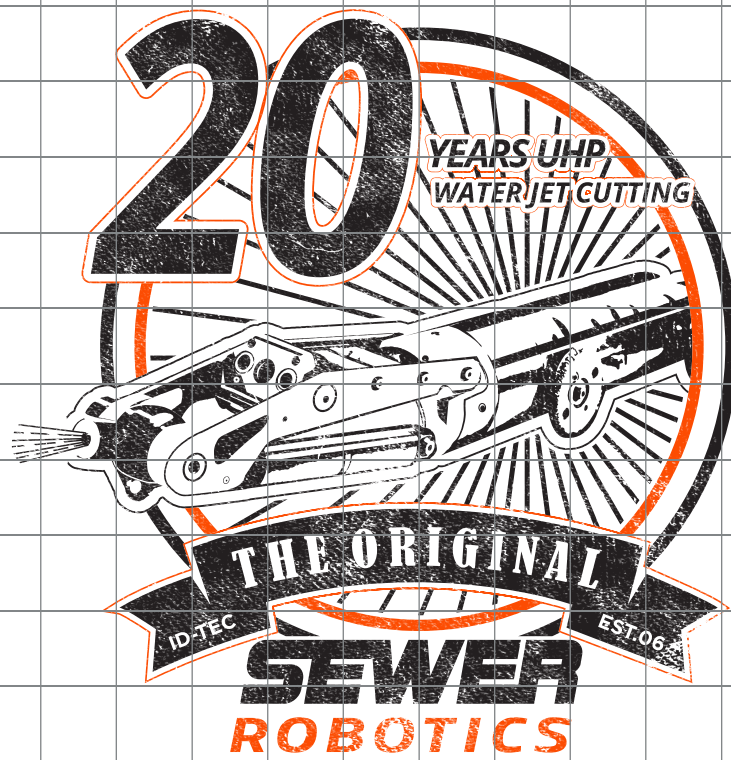
SEWER ANALYTICS

- Password-protected access from any device
- Automatic cloud synchronization ³
- Automatic registration of date, time and location
- Interactive map, observation coding, prioritizing and sharing functions
- FREE 500 GB Sewer Analytics cloud storage

ACCESSORIES

- Jet inserts
- Hose adapters and swivels
- Nozzles for different cleaning applications
- Large diameter skid with auxiliary lighting
- Charging dock for C70 and tablet
- Inclination measurement
- Customized software integrations

NOTES





OUR STORY

Two operators, tasked with removing a massive root blockages from a sewer pipeline had the great idea of equipping a robot crawler with a high-pressure jet.

With that solution, almost two decades ago, the company ID-TEC was founded and introduced the first modular robot system to perform various sewer rehabilitation jobs.

Today, ID-TEC's technologies, marketed under the brand names Sewer Robotics, PRO-JETTING, MobilPower, and DiveWise-Equipment, help customers in different industries around the world to make their everyday jobs safer, easier, and more cost-effective.

SEWER **ROBOTICS**



WWW.SEWERROBOTICS.COM



INFO@SEWERROBOTICS.COM



+31 174 289 475 [TEL]



+1 503 504 8474 [USA]



ABC-WESTLAND 197, 2685DB
POELDIJK, THE NETHERLANDS

YOUR SEWER ROBOTICS DISTRIBUTOR: