Cincinnati Store 4265 Muhlhauser Fairfield Oh 45014



Home Office 7401 First Place Cleveland, OH 44146

Columbus SMOC

#### Re: MTech Cues Sewer Inspection and Cutter Equipment Proposal

Thank you for the opportunity to submit our bid to provide the City of Columbus with CUES sewer inspection equipment, GNET software, and cutting setup. At MTech, we are committed to delivering industry-leading solutions and exceptional service, and we are confident that our expertise and resources make us the ideal partner for this project.

Since becoming a CUES dealer in 2010, MTech has earned the prestigious CUES Dealership of the Year Award 12 times, a testament to our unwavering dedication to customer satisfaction and support. This recognition reflects our consistent ability to deliver outstanding service and reliable solutions to our clients. With two strategically located service centers in Ohio, we have made significant investments to ensure comprehensive support for our extensive CUES customer base.

Our service offerings are unmatched in the industry and include:

**On-Site Service and Support**: Our experienced technicians provide rapid, on-site repairs to minimize downtime.

**Parts Pick-Up and Drop-Off**: Streamlined logistics ensure quick access to necessary components.

**Loaner Program**: Our unique loaner program ensures continuous operation by providing temporary equipment during repairs.

Low Cost of Ownership: CUES is made in the USA, while we are proud of this, it comes with benefit to our customers. While others struggled during Covid with parts availability due to coming from over-seas, CUES never wavered. In the current environment as tariffs have shifted business practices CUES does not have any tariff upcharges on equipment or parts resulting in a much lower cost of ownership compared to others on the market.

MTech's camera repair technicians bring decades of combined experience working specifically with CUES equipment. This expertise, coupled with specialized tooling and in-depth knowledge, allows us to perform precise repairs, often eliminating the need for customers to transport equipment to a service center. As a result, our clients experience minimal downtime and maximum operational efficiency.

**Cincinnati Store** 4265 Muhlhauser Fairfield Oh 45014



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Enclosed with this letter is our detailed bid proposal, outlining the specifications, pricing, and delivery timelines for the CUES sewer inspection equipment, GNET software, and cutting setup. We are eager to collaborate with the City of Columbus to ensure the success of this project and to deliver solutions that meet your exact needs.

Please feel free to call me if you have any questions or if there is anything else I can do to assist in this process. Thank you again for this opportunity and we look forward to earning your business.

Sincerely,

Don Houck, Regional Sales Manager MTech Company (330) 550-6543 dhouck@mtechcompany.com

3.3	PRODUCT REQUIREMENT SPECIFICATIONS:	DESCRIBE ACTUAL PRODUCT BID	
3.3.2	TRUCK CHASSIS		
3.3.2.1	Dimensions		
3.3.2.1.1	The unit shall be a single axle F550 chassis with an adequate wheelbase to accommodate cargo box body.	F550	
3.3.2.1.2	Chassis shall be 2-wheel drive.	Comply	
3.3.2.1.3	GVWR: Minimum 16,000 lbs. as needed to accommodate 16-foot cargo body with equipment.	18k GVW With 16 Ft Box	
3.3.2.1.4	Cargo box body shall be minimum 15 feet and maximum 17 feet.	Comply	
3.3.2.1.5	Vehicle shall have cabin air conditioning.	Roof Mounted Heater / AC	
3.3.2.2	Engine		
3.3.2.2.1	Shall be diesel or gasoline powered engine and suitable HP for truck and body equipment.	Gas	
3.3.2.2.2	Powertrain shall be able to support the supply of electrical power to support computer and tv equipment, electric heater, air conditioning unit and all installed equipment.	Comply	
3.3.2.3	Transmission		
3.3.2.3.1	The unit shall be equipped with an automatic transmission sized for application with PTO provision if using under deck type equipment.	Comply	
3.3.2.3.2	PTO, if using under deck option, shall be sized to operate VMAC or Vanair underdeck compressor kit or approved alternative to include all items necessary to provide air pressure for equipment service.	VMAC Air Compressor	
3.3.2.3.3	Dipstick location shall not interfere with PTO and installed equipment.	Comply	
3.3.2.4	Generator Equip	ment	
3.3.2.4.1	Truck shall be able to provide a minimum of 6.3Kw of power to support equipment operations.	7000 KW Cummins ONAN	
3.3.2.4.2	Power shall be supplied by either under deck method, under hood method, standalone generator or a combination.	Under the Deck Mounted for easier maint. access	
3.3.2.4.3	If supplying a stand-alone generator, fuel type of generator shall be the same as the fuel supply of the vehicle and in an easily accessible location.	Gas engine with Gas Generator	

3.3	PRODUCT REQUIREMENT SPECIFICATIONS:	DESCRIBE ACTUAL PRODUCT BID	
3.3.2.5	Equipment Body		
3.3.2.5.1	Body shall have LED light package including body clearance and stop/tail/turn lights.	Comply as requested	
3.3.2.5.2	Body shall have full width rear barn doors with CAM style locks for each door.	Comply as requested	
3.3.2.5.3	Shall have safe entry/exit style bumper with evenly spaced steps and safety grab handle.	Comply as requested	
3.3.2.5.4	Shall have backup camera system.	Comply as requested	
3.3.2.5.5	Shall have low profile, roof mounted air conditioner for cargo body area.	Comply as requested	
3.3.2.5.6	Cargo body shall have wall mounted electric type heater unit.	Comply as requested	
3.3.2.5.7	Cargo body shall be divided into two separate areas by bulkhead wall with passage door: viewing area and equipment room.	Comply as requested	
3.3.2.5.8	Cargo body shall have an exterior curbside door with steps which access the viewing area.	Comply as requested	
3.3.2.5.9	Entire cargo area shall have Lonseal Lonplate flooring or equivalent.	Comply as requested	
3.3.2.5.10	Cargo area walls shall be covered in Kemlite with weather resistant/smooth finish or equivalent.	Comply as requested	
3.3.2.5.11	Interior lights shall be 12V LED type where applicable.	Comply as requested	
3.3.2.5.12	Cargo body exterior shall be standard white in color.	Comply as requested	
3.3.2.6	Viewing Roo	m	
3.3.2.6.1	Viewing area shall be set up as manufacturer requires to house computer and control equipment.	Comply as requested	
3.3.2.6.2	Viewing area shall have room for bench seat with cushion.	Comply as requested	
3.3.2.6.3	Viewing area shall have a closet for storage.	Comply as requested	
3.3.2.6.4	Viewing area shall have multi-outlet workstation with lights and USB ports.	Comply as requested	
3.3.2.6.5	Workstation shall include dual flat screen color industrial tv monitors with NDSC/PAL color standards mounted on brackets.	Comply as requested	
3.3.2.6.6	Workstation to include rack mounted PCU assembly and CCU assembly.	Comply as requested	

3.3	PRODUCT REQUIREMENT SPECIFICATIONS:	DESCRIBE ACTUAL PRODUCT BID	
3.3.2.6.7	Workstation to be equipped with wireless controller to operate camera and steering functions along with all other camera and transporter functions.	Comply as requested	
3.3.2.6.8	Workstation to be equipped with wired controller to operate camera and steering functions along with all other camera and transporter functions.	Comply as requested	
3.3.2.6.9	Workstation shall have computer only with following minimum specs: Window 11 pro 64 OS Gigabyte z790 Aorus Elite AX motherboard Intel I7-13700 processor 16GB DDR5 4800 RAM 1 TB SSD M.2 Primary HD 2 TB SSD M.2 Secondary HD 1 HDMI, 1 display port Monitor support USB-C 20GB, 4 USB 2.0, 5 USB 3.2 Back ports 2 USB 3.0 front ports 2.5 GB Ethernet ports Wi-Fi 802.11 ax Wi-Fi 6E	Comply as requested	
3.3.2.6.10	Shall include 8.7-inch mini keyboard.	Comply as requested	
3.3.2.6.11	Shall include wireless mouse and keyboard.	Comply as requested	
3.3.2.6.12	Shall include all necessary cabling and components to complete the interface between the data acquisition system, peripherals and the video inspection equipment.	Comply as requested	
3.3.2.6.13	Shall include GraniteNet Premium Inspection software kit with premium software support plan.	Full GNET Premium and support plan included in bid price	
3.3.2.7	Equipment Room		
3.3.2.7.1	Equipment room shall include electrical outlets with dual receptacles strategically located for ease of use.	Comply as requested	
3.3.2.7.2	Equipment room shall be illuminated by 12V, high intensity LED light fixture.	Comply as requested	
3.3.2.7.3	Equipment room shall have wash down system to include electric water pump, 25-foot retractable hose reel with water hose and nozzle, and freshwater tank with minimum 15 gallon and maximum 25-gallon capacity.	Comply as requested	

3.3	PRODUCT REQUIREMENT	DESCRIBE ACTUAL
3.3.2.7.4	SPECIFICATIONS:  Equipment room shall have upper and lower storage cabinets arranged to include work	PRODUCT BID  Comply as requested
3.3.2.7.5	top with a sink and faucet.  Equipment room workstation shall include tool chest, bench mount vise, first aid kit and	Comply as requested
3.3.2.7.6	universal paper towel holder.  Flat screen monitor mounted on bulkhead	Comply as requested
3.3.2.7.7	wall with cable tied to viewing room monitor.  Shall have power boom crane with LED	Comply as requested
3.3.2.7.8	lighting and crane controller holder.  Shall include rack mounts as needed for hardware.	Comply as requested
3.3.2.7.9	Shall have lockable transporter storage box for camera and transporter.	Comply as requested
3.3.2.7.10	Shall have 1500-foot cable assembly for TV transmission/tow cable.	1500 Feet, this allows us to travel through 3 standard manhole sizes. Leaves extra for retermination down the road
3.3.2.7.11	Shall have Currahee (or equivalent) tv/cutter reel assembly with level wind, auto payout and footage meter.	Comply as requested
3.3.2.7.12	Shall have controller at viewing station for cutter reel.	Comply as requested
3.3.2.7.13	Shall have 500-ft air hose assembly, bonded 3/4 & 1/4 hose.	Comply as requested
3.3.2.7.14	Shall be equipped with Currahee (or equivalent) cutter, 6–12-inch standard to include all items needed operate cutting tool.	Comply as requested
3.3.2.7.15	Shall have test cable assembly for cutter.	Comply as requested
3.3.2.7.16	Shall have cutter forward facing camera kit.	Comply as requested
3.3.2.7.17	Shall have 45 air motor assembly.	Comply as requested
3.3.2.7.18	Shall have circular diamond bit, 1.7 diameter, 3/8-24.	Comply as requested
3.3.2.7.19	Shall include 30" manhole hook.	Comply as requested
3.3.2.7.20	Shall include cutter downhole kit.	Comply as requested
3.3.2.7.21	Shall include tiger tail.	Comply as requested

3.3	PRODUCT REQUIREMENT SPECIFICATIONS:	DESCRIBE ACTUAL PRODUCT BID
3.3.2.7.22	Shall include Redi evaluation kit including: Rugged weatherproof storage case Digital hi-res wide angle web camera Diagnostic test box Footage test box Digital multi meter USB diagnostic tool Video cables and adaptors	Comply as requested
3.3.2.7.23	Shall include cutter tool kit including: Electrical tape Toolbox Milliamp meter 12" pipe wrench 9-piece Allen wrench kit Retainer ring pliers 6" diagonal cutter tool 12 oz pall been hammer Drive pin punch Needle nose pliers Six in one screwdriver Open end wrench set 6" adjustable wrench Anti-seize grease Solder iron kit	Comply as requested
3.3.2.7.24	Shall include pan and tilt zoom LED camera with built in sonde.	CUES OZIII CAMERA
3.3.2.7.25	Shall include steerable, wheeled transporter sized for equipment on the truck.	CUES COMPACT PIPE RANGEI
3.3.2.7.26	Shall include 25", 110V shore power cable.	Comply as requested

#### 3.4 Training

3.4.1 Manufacturer shall provide a training program that covers the unit's safe operational instruction and routine maintenance procedures. The training program shall be entered in Line Two (2) of the bid and shall be for a minimum of (1) one working day for the operators of the machine and minimum (1) one working day for Fleet Services personnel. Training will take place at locations determined by the City.

#### 4.0 SAMPLING, INSPECTION AND TEST PROCEDURES

4.1 **Demonstration:** The City reserves the right to require a demonstration of any equipment prior to award of the bid. Such demonstration shall be conducted, at the sole discretion of the City, either on roads in the City of Columbus, or in another municipal setting in Franklin County, Ohio where such equipment is in daily operation. All costs associated

#### **REFERENCES**

The bidder must briefly document its capabilities and submit an outline of its experience and work history in the supply and delivery of TV and Cutter Trucks for the past five years by submitting the contact information of professional references from four (4) separate contracts. References should consist of projects of a similar scope, complexity, and cost.

Business Name:	EMHT	Tel #: <u>( 614</u> 638 <sup>4532</sup>
Address:	5500 N AU D IN	
E-mail:		Fax #: <u>()</u>
Contact:		uipment purchase date: 2010
Equipment Provid	led/ Warranty Service Perform	
EMHT has purc	hased 12 CUES trucks sind	e 2010 of a variet of types . MTech has
successfully ha	andled all warranty and serv	ice requirements for 15 years
Business Name:	Ohio DOT	Tel #: <u>(</u> 614) 387 <sub>-</sub> 4229
Address:	1980 W Broad St Columbi	us Oh 43223
E-mail:	david.Novotny@dot.ohio.g	ov Fax #: ( <u>)</u>
		uipment purchase date: _2012
Equipment Provid	led/ Warranty Service Perform	ed:
	-	om MTech since 2012, and most
		nty and service has been conducted by
	nter in Cincinnati and Cleve	and are utilized in addition to on -site
service.		

#### **RFERENCES** (continued)

Business Name:	Akron Ohio	Tel #: ( <u>330</u> )802	_ 1590
Address:	2460 Akron - Peninsula	Road Akron Ohio 44313	
E-mail:	Jkline@akronohio.gov	Fax #: ( <u>)</u>	
Contact:Ja	son Kline	Equipment purchase date: 200	)8
Equipment Provid	led/ Warranty Service Perfo	ormed:	
•	•	ince 2008. MTech along with	CUES
		and Gnet software related su	
Most recent pu	urchase was in 2024		
Business Name:	Maumee	Tel #: <u>( 419 ) 48</u>	1 - 0088
Address:	400 Conant Street Maume	ee Ohio 43537	
E-mail:	isaacson-jacob@maume	e.org Fax #: ( <u>)</u>	
		Equipment purchase date: _202	
Equipment Provid	led/ Warranty Service Perfo	ormed:	
	•		and a Cupa
The City of Mau	nee has recently moved o۱	rei ilolli a collipetitoi aliu pulcita	iseu a Gues
	mee has recently moved over a common mee has recently moved over the meeting m	ch has handled all service, traini	
truck with the Cu			
truck with the Cu	ırahee Cutter system. MTe		

#### **SUBCONTRACTORS INFORMATION (IF APPLICABLE)**

Business Name:	Tel #: ( <u>)</u>	
Address:		
E-mail:	Fax #: <u>( ) -</u>	
Contact:	Equipment purchase date:	
Equipment Provided/ Warranty	Service Performed:	
		_
Business Name:	Tel #: ()	
Address:		
E-mail:	Fax #: ( <u>)</u>	
Contact:	Equipment purchase date:	
Equipment Provided/ Warranty	Service Performed:	









**Prepared for:** 

M TECH COMPANY

**Customer:** 

COLUMBUS, CITY OF (SEWERS)

#### Prepared by:

Frank lannotti Regional Sales Manager







Thank you for your interest in CUES products and for allowing us the opportunity to provide this proposal. We understand the task of choosing a vendor can be daunting, and we respect how difficult it is to weigh the differences between manufacturers and system designs.

Since 1964, CUES has been the pipe inspection industry leader, offering the most reliable and durable equipment in the world, while bringing the best available technologies to the market.

We offer world-class technical support to your team, with the most collective industry knowledge of any manufacturer. CUES is the only industry company to offer a 100% full-circle solution for all your pipeline inspection needs.

We take pride in providing long-term pipeline and manhole inspection solutions. Thank you again for the opportunity to provide this proposed solution.

Sincerely,

Frank lannotti
CUES, INC.
Regional Sales Manager
Cell:

franki@cuesinc.com







### **CUES Equipment Quote**

DESCRIPTION	QUANTITY
CUES TV/CUTTER SYSTEM TO INCLUDE:	1
FORD F-550 GAS CAB CHASSIS 205" WB 2X4 CHASSIS WITH 16' CARGO BOX	1
7000 WATT GAS ONAN GENERATOR WITH UNDER CHASSIS COMPARTMENT	1
VMAC COMPRESSOR 150	1
POWER BOOM CRANE WITH LED LIGHTING (SHORT), REEL MOUNT & WIRED CONTROLLER	1
SAFE ENTRY/EXIT BUMPER FOR F-550	1
TRANSPORTER STORAGE DRAWER FOR TV ONLY	1
KICKPLATE 2 DRAWER STACK ALUMINUM STORAGE	1
BACK-UP COLOR CAMERA SYSTEM [CHASSIS]	1
EXTERIOR CHASSIS LIGHTING - STANDARD	1
EVOLUTION 3.0 INTERIOR	1
LOW PROFILE, ROOF MOUNTED AIR CONDITIONER	1
WALL MOUNTED ELECTRIC HEATER WITH HOUSING	1
CURBSIDE DOOR WITH 3 STEPS	1
BENCH SEAT WITH CUSHION	1
CLOSET IN VIEWING ROOM	1
WINDOW TRIM KIT	1
MULTI-OUTLET WORKSTATION WITH LIGHTS AND USB PORTS	1
20-GALLON WASHDOWN SYSTEM WITH SINK	1
5 DRAWER TOOL CHEST WITH DRAWER LINERS	1
VISE, BENCH MOUNT	1
FIRST AID KIT	1
PAPER TOWEL HOLDER	1
HARDWARE KIT FOR PTO/VMAC COMPRESSORS (COMPRESSOR NOT INCLUDED)	1
22" MONITOR (QTY: 2) WITH SHORTENED MOUNT FOR DESK TOP (QTY:2)	1
32" REAR LED MONITOR IN EQUIPMENT ROOM WITH MOUNT	1
1500' GOLD TV CABLE ASSEMBLY, 12 PIN	1







DESCRIPTION	QUANTITY
CURRAHEE / SCHWALM / KANGAROO TV/CUTTER REEL ASSEMBLY WITH 500' OF AIR HOSE STANDARD	1
COMPONENTS FOR CURRAHEE / SCHWALM WIRED CUTTER SYSTEM	1
CURRAHEE CUTTER,6-12IN,STD V2	1
BIT,DIAMOND,CIRC,1.7DIA,3/8-24	1
45 ANGLE AIR MOTOR ASSEMBLY	1
FORWARD FACING AIR MOTOR ASSEMBLY	1
CURRAHEE FORWARD FACING CAMERA KIT, V2	1
OZ3s P&T ZOOM M/C LED CAMERA WITH BUILT-IN SONDE	1
BRASS STEERABLE COMPACT PIPE RANGER, WHEELED	1
8" RUBBER WHEEL KIT	1
10-15" RUBBER WHEEL KIT	1
6"-15"PIPE SPACER KIT - BRASS	1
COMPUTER ONLY [NO Granite SOFTWARE] - RACK MOUNT	1
GraniteNet Inspection Premium Kit	1
GraniteNet Inspection Premium Annual Support Plan	1
KEYBOARD AND MOUSE COMBO, WIRED	1
PRINTER AND INTERCONNECT CABLING FOR COMP USING WIRED MOUSE/KEYBOARD	1
UPS BELOW DESKTOP MOUNT	1
TV DOWNHOLE KIT	1
30" MANHOLE HOOK	1
TIGER TAIL WITH ROPE	1
TOOL KIT FOR CUTTER AND SEAL SYSTEMS	1
REDI EVALUATION KIT	1
3 DAYS FIELD TRAINING FOR ID SYSTEM	1
TRUCK DELIVERY-OHIO	1
List Total:	\$507,000.00







### **Payment and Purchase Terms & Conditions**

Delivery: 90 - 120 days ARO

### CURRAHEE 2.0 LATERAL REINSTATEMENT CUTTERS



#### SIMPLICITY, DURABILITY, PRODUCTIVITY

CUES Currahee Cutters provide a number of solutions for pipe inspection and rehabilitation--from clearing blockages, debris, protruding laterals, and roots, to reinstating laterals in a CIPP liner. These are just a few of the applications for this product.

These cutters are specifically designed to reinstate wastewater service laterals, remove protruding taps, and brush-finish existing cuts. Currahee includes a 2.0hp air motor to provide more power, increased productivity, and a smoother cut when operating in 6" - 12" relined pipe. The cutters function in a range of 5.25"- 12" (133 mm - 305 mm) pipe, are equally effective in CIPP or fold and form liners, and can be installed on a CUES K2 truck-mounted cutter system. Both cutter systems perform optimally using 1000'-1500' (305 m - 457 m) of cable and are operated with the CUES gamepad controller!



ONE CONTROLLER FOR ALL SYSTEMS!
The Currahee Cutters operate off the same gamepad controller that operates CUES mainline, digital sidescanning, lateral-launch, and grout equipment.

### CUES 🦄



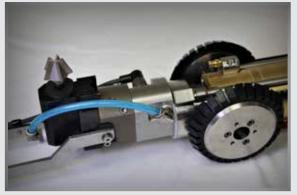
> VARIETY OF BITS AVAILABLE



> OPTIONAL PARTS AVAILABLE



> CURRAHEE CUTTER CAMERA



> WATER BLOW-OFF & WIPER



#### **CUES CUSTOM CUTTER VEHICLES**

CUES custom CCTV/Cutter truck and trailermounted units include full capabilities for reinstating lateral services, removal of protruding taps, brushfinishing existing cuts, and pre and post TV inspection.

- Box Trucks, Step Vans, and Trailer-Mounted Units
- Dry freight box mounted for export
- Can be mounted with lateral-launcher equipment or joint & lateral sealing equipment in a self-contained unit
- Compressor can be mounted onboard or tow-behind



### COMPACT PIPE RANGER MULTI-CONDUCTOR WHEELED TRANSPORTERS



The Compact Pipe Ranger (CPR) is a lightweight, compact, and rugged steerable TV camera transporter used to inspect sanitary and storm sewers.

The Compact Pipe Ranger (CPR) is designed to operate on a minimum of 1000' (305 m) of multiconductor TV cable to inspect 6" (152 mm) relined through 48" (1219 mm) diameter pipe. The CPR includes full-proportional steering to traverse meandering pipe and 45 and 90 degree turns.







Multiple wheel sets are available to maximize bottom-clearance, traction, and optimize camera position; High-traction wheels are available for slippery PVC pipe; Wheels can be installed or removed from a single point of contact. The superior pulling power of the CPR, combined with the optics and directional lighting of the compact OZIII-S zoom pan and tilt camera (with the ability to rotate in a 4" (102 mm) circle) or OZ4-HD camera, creates video inspection quality that's unsurpassed in the industry.



### **Compact Pipe Ranger**Features and Benefits

- Operates in 6" (152 mm) relined through 48" (1219 mm) diameter pipe and larger.
- Operates with the optional OZIII-S or OZ4-HD cameras.
- Ease of operation is accomplished with one joystick control for all transporter and camera movements.
- A variable "cruise control" setting is available for transporter speed for hands-off operation!
- Designed to traverse sanitary sewers, storm drains and pipe with debris and silt.
- Freewheel, powered reverse, forward variable speed control, all wheel drive.
- Locking bayonet-style rear bulkhead connector durable/stable.
- Two-speed transmission doubles the torque and maximizes traction in varying pipe conditions.
- Rear swivel bulkhead connector minimizes strain on the cable connection during insertion and retrieval of the unit.
- Compact camera/transporter length with the optional OZIII-S or OZ4-HD cameras facilitates entry into small inverts, small manholes, dead end lines, and traversal of sweeps.
- Full proportional steering control to traverse meandering pipe with 45° and 90° turns; minimizes transporter turnover in small diameter pipe.

An optional mechanical or power camera lift is available to prevent the need for an operator to enter the manhole to position and reposition the camera height and to optically center the camera in varying pipe diameters.



Optional Mechanical Camera Lift



**Optional Power Camera Lift** 

An optional rear-viewing camera, which is mounted to the CPR transporter, is available to help avoid obstacles and potential tip-overs in the pipeline by providing visibility when retrieving the transporter or driving in reverse.



Optional Rear-Viewing Camera

### OZIII-S PAN TILT & OPTICAL ZOOM CAMERA WITH SONDE



The OZIII-S camera provides up to 120:1 optical/digital zoom, automatic focus, as well as remote focus and iris control, to assure the best quality video within varying pipe conditions.

The OZIII-S optical zoom pan-and-tilt camera offers built-in directional field-replaceable lighting for 6"-72" (152 -1829 mm) pipe to produce the highest quality image details of your CCTV pipeline inspection.

Use the OZIII-S camera with the CUES steerable Compact Pipe Ranger (CPR) to inspect 6" (152 mm) relined through 48" (1219 mm) sanitary and storm sewers. OZIII-S connects directly to the CPR transporter with no exterior wires or cables. The OZIII-S camera includes a sonde to accurately locate the camera in metallic and non-metallic pipes! An optional inclinometer is also available for inclination surveys.



#### **OZIII-S Camera** Features & Benefits

- 10X optical zoom and 12X digital zoom; total 120:1 zoom capability enhances image details from faraway distances.
- 360 x 285 degree pan and rotate viewing capability; pan and tilt simultaneously while the transporter moves!
- Field-replaceable cool white LED lighting for 6"-72" (152-1829 mm) lines with optional external lightheads; internal lights are directional with the moving camera head for optimum illumination in various pipeline conditions.
- Includes an internal diagnostic system.

- Gamepad control of focus, iris, and shutter allows the operator to compensate for pipe conditions.
- Pan, rotate, zoom, and focus homing feature; quick and easy to reorient to the current location.
- Optical-grade sapphire camera window helps prevent image distortion.
- Includes a 512 Hz sonde for locating and inclinometer for inclination surveys.
- Can be used in pipelines as small as 5" (127 mm) in diameter.



10X optical zoom and 12X digital zoom; total 120:1 zoom capability.

360 x 285 degree pan and rotate viewing capability.

Auto-focus to quickly focus on an area of interest.

Can be used in pipelines as small as 5" (127 mm) in diameter.