STATE OF MINNESOTA
PRICING PAGE
(Typed Responses Required)

Crawler Inspection Camera System

Price quote for:

Vendor Name:	**MacQueen Equipment, Inc.**
Contact Person:	**Dan Gage**
Street Address:	**595 Aldine Street**
P.O. Box:	
City, State, Zip	**St. Paul MN 55104**
Phone #:	**651.645.5726**
Toll Free #:	**800.832.6417**
Fax #:	**651.645.6668**
Email Address:	dgage@macqueeneg.com

Spec #	Information Requested	Answer
1.0	**Make & Model**	Envirosight SuperVision SAT
	Crawler:	
	Number of drive wheels/tracks	8 wheels w/overlapping design
	Number of drive motor(s)	2
	Drive mechanism (chain, belt, gear, etc.)	Gear drive
	Does drive mechanism have a clutch	No
	Internal pressure rating	IP 68
	Pressurization method	CO_2 cartridge w/regulator
	Does crawler maintain pressure if camera is removed	Yes
	Over/under pressure indicator light	On screen pressurization field with audible alarm if pressure falls below recommended pressure.
	Can repressurization be accomplished in the field	Yes
	Quantity, type & size of tracks/wheels included with base package	Eight 3.33" diameter rubber wheels
	Overlapping wheel design to prevent high centering	Yes
	Wheel/Track change tool requirement	Allen wrench (supplied)
	Wheel/Track change time requirement	8 wheel change is 8 minutes
	Minimum pipe diameter	6"
	Dimension-crawler only (LxHxW)	24" x 5.1" x 4.7"

STATE OF MINNESOTA
PRICING PAGE
(Typed Responses Required)

Spec #	Information Requested	Answer
	Overall length with camera attached	26"
	Weight of crawler	44 lb
	Overall weight crawler with camera attached	44 lb
	Material the crawler constructed from	Solid piece stainless steel
	Cable connector type to crawler	Stainless steel bayonet connector that will lock with 2 turns of outer stainless connector. Spring loader pin on crawler body shall lock connector in place. Waterproof with 1000 lb break strength
	Tools required to connect/disconnect crawler from cable	Hand turned
	Number of controls required to operate crawler	One pendant control for all crawler, lights, camera zoom
	Direction crawler can operate (example: forward/neutral/reverse)	Control pendant has all functions for crawler, forward/reverse/right/left. Crawler speed up to 75' per minute
	Is crawler steerable	Yes
	Does crawler have rear vision camera capability	Yes
	Inclinometer standard	No
	Power requirement (watts/amps/voltage)	50 Watts DC
	Is a Sonde device available	Yes in camera head for lateral locating
	Camera:	
	Pan & tilt	Yes
	Pan and tilt control type	Joy stick
	Home position control type	Yes with automatic return
	Pixels & lines of resolution	380,000 pixels w/420HTV lines of resolution
	Zoom (magnification optical & digital)	No
	Lux rating	1 Lux sensitivity
	Construction material	Stainless steel
	Lens type	4mm, f1.2, remote focus
	Lens field of view (VxHxD)	.025" to infinity/68 degree x 90 degree x 100 degree
	Black & white or color	Color
	Lighting type	LED light ring w/optional additional lighting
	Type of lighting control	Dial type w/infinite adjustment

STATE OF MINNESOTA
PRICING PAGE
(Typed Responses Required)

Spec #	Information Requested	Answer
	Field replaceable lights	Yes
	Focus (auto & manual)	Auto & manual
	Connection type	Stainless steel waterproof swivel loc-tite style. Locked & unlocked with T handle tool used for cable connection
	Dimensions (LxHxW)	72mm x 72mm x 72mm
	Camera weight	3.5 il
	Pressurization method	CO2 cartridge, field pressurization capable
	Internal pressure rating	IP 68
	Over/under pressure indicator light	On screen pressurization field with audible alarm if pressure falls below recommended pressure
	Does camera maintain pressure when removed from crawler	Yes
	Will camera connect to cable w/o crawler and be fully functional	No
	Maximum viewing angle for pan	360 degrees
	Maximum viewing angle for tilt	135 degree
	Camera controller have "home" position function type	Yes, one touch button automatic
	Does camera have the ability to view 360 degrees	Yes
	Field replaceable windshield on camera	Yes

Cable:

Spec #	Information Requested	Answer
	Cable length	300' with 100' of launch cable
	Cable diameter	.19"
	Break strength	1000 lb
	Single or multi-conductor	Multi-conductor
	Repairable	Yes

Cable Reel:

Spec #	Information Requested	Answer
	Motorized (yes/no)	Yes
	Drive type	Motorized utilizing a slip ring design using gold & rhodium housed in an environmentally sealed housing
	Automatic pay-out, or pulled by crawler	Auto pay-out
	Automatically payed-in	Yes with speed & torque controls
	Cable reel level wind system	Auto level wind system

STATE OF MINNESOTA
PRICING PAGE
(Typed Responses Required)

Spec #	Information Requested	Answer
	Drum emergency stop switch	Drum has (red) emergency stop button for the operator.
	Resettable counter	Yes
	Counter-mechanical or electronic	Electronic
	Forward/reverse engagement control type (manual or electronic)	Electronic
	Speed control type	Pay out and in is controlled by the speed of the crawler knob type control on cable drum
	Type of torque control	Knob type on cable reel
	Overheat sensor	Yes
	Cable reel capacity	300
	Portable	No (stationary mount)
	Dimensions (LxHxW)	29" x 11.8" x 26.5"
	Power requirements	2 amps

Central Control Unit:

Spec #	Information Requested	Answer
	Power requirements	4 amps
	Circuit protection type	Fuse & circuit breakers
	Video in/out	Video BNC connector & RS232 for text and footage data to software
	Type of text generator	On screen text & information fields. Includes help directory and will store data for 30 days after the power is turned off.
	Keyboard	Yes
	Desktop camera control	Yes
	Number of video text generators on-screen	7
	Video display of footage, time and date	Yes
	Warranty	1 Year
	BASE UNIT PRICE:	

VENDOR NAME	MacQueen Equipment Inc.
MAKE AND MODEL	Envirosight SAT Lateral Launch

Spec #	Description	Qty	Price	Subtotal
1.0	SAT Lateral Launch crawler Pan and Tilt camera with standard wheels, Eight 3.33" diameter rubber wheels, TR350 automatic motorized cable reel with 300' of cable with 100' Launch, Control unit, Pendant controller, Forward looking Camera Pressurization kit, lowering tool and manual. Vehicle/Trailer mounted system. **Price for Base unit:**		$ 121,200.00	$ -
1.1	**Crawler Options** Use this section to offer crawler options. Number items starting with 1.11, 1.12, etc. Use as many numbers as you need.			
1.11	Additional SAT Crawler		$ 40,000.00	$ -
1.12	LF2100 receiver locator with hard carrying case and headphones		$ 3,024.00	
1.13	512 Hz external sonde transmitter 10-15' detection		$ 504.00	$ -
1.14	512 Hz external sonde transmitter 20-30' detection		$ 963.00	
1.15	512 Hz external sonde transmitter 40-60' detection		$ 1,723.00	
1.20	**Wheel Options** Use this section to offer wheel options. Number items starting with 1.21, 1.22, etc. Use as many numbers as you need.			
1.21	Large diameter grease wheel (each)		$ 417.00	$ -
1.22	3.33" diameter small grease wheel for RX95 Crawler (each)		$ 283.42	
1.23	4.33" diameter medium grease wheel (each)		$ 367.00	
1.24	3.33" diameter rubber wheel (each)		$ 95.78	
1.25	4.33" diameter wide rubber wheel (each)		$ 370.00	
1.26	4.33" diameter super aggressive spike wheel (each)		$ 333.00	
1.27	5.31" diameter large rubber wheel (each)		$ 255.00	
1.28	Large balloon tires for RX Carriage (each)		$ 404.00	$ -
	Wheel bolt kit		$ 44.00	
1.30	**Camera Options** Use this section to offer camera options. Number items starting with 1.31, 1.32, etc. Use as many numbers as you need.			
1.31	Additional Pan and Tilt PTP70 Camera		$ 13,500.00	$ -
1.32				$ -
1.40	**Lighting Options** Use this section to offer lighting options. Number items starting with 1.41, 1.42, etc. Use as many numbers as you need.			
1.41				$ -
1.42				$ -
1.50	**Control Consoles** Use this section to offer control console options. Number items starting with 1.51, 1.52, etc. Use as many numbers as you need.			
1.51	19" LCD TV monitor (for installation in enclosure)		$ 765.00	$ -
1.52	17" LCD computer monitor (for installation in enclosure)		$ 841.00	
1.53	**Win Can Professional** / WC Entry / WC OSD Control/ Crack Measuring / WC Viewer / PACP Module/ MPEG 1/214 Compression		$ 7,136.00	$ -
1.54	**Win Can Ultimate** / WC Entry / WC OSD Control/ Crack measuring / WC Viewer / PACP Module/ MPEG 1/214 Compression / Manhole Module / Photo Assist Module / WC Validator Module / Report Generator		$ 11,214.00	$ -
1.55	**Win Can Office** / WC Entry / Manhole Module / Crack measuring / WC Viewer / PACP Module / Photo Assist Module / Lateral Module / WC Validator Module / Report Generator		$ 5,097.00	$ -
1.56	**Win Can Pro Touch** / Touch Screen Data Collection / PACP Module / Pro Touch Viewer / MPEG 1/214 Compression		$ 2,548.00	$ -
1.57	**Win Can Rovver X Package** / Win Can Entry / Bronze Infinity Support / 5 Hours Web Training		$ 4,587.00	$ -
1.58	Win Can Entry		$ 3,028.00	$ -
1.59	Photo Assist Module		$ 3,028.00	$ -
1.59.1	Lateral Module		$ 1,529.00	$ -

Spec #	Description	Qty	Price	Subtotal
1.59.2	Manhole Module		$ 1,529.00	$ -
1.59.3	WinCan Validation Module		$ 1,019.00	$ -
1.59.4	WinCan Transfer Module		$ 2,038.00	$ -
1.59.5	Report Generator Module		$ 1,529.00	$ -
1.59.6	WinCan Project Manager Module		$ 1,529.00	$ -
1.59.7	OSD Control Module		$ 1,019.00	$ -
1.59.9	MPEG 1/2/4 Compression		$ 4,077.00	$ -
1.59.10	DIVX/MPEG 1 Compression		$ 1,529.00	$ -
1.59.11	Inclination Module		$ 2,038.00	$ -
1.59.12	Parrellel Laser Measurment Module		$ 2,038.00	$ -
1.59.13	WinCan 3D Module		$ 5,097.00	$ -
1.59.14	Multiple Inspection Module		$ 1,529.00	$ -
1.59.15	WinCan Scan Explorer Module		$ 7,646.00	$ -
1.59.16	WinCan Laser Scan Module (For Ring and Mulit Pouint Lasers)		$ 5,097.00	$ -
1.59.17	WinCan Map Module		$ 4,077.00	$ -
1.59.18	WinCan GIS Office		$ 7,646.00	$ -
1.59.19	WinCan Pro Clean		$ 7,646.00	$ -
1.59.20	WinCan Version Upgrade		$ 4,077.00	$ -
1.59.21	WinCan Hansen Integration		$ 6,626.00	$ -
1.59.22	WinCan 5 Seat Network License		$ 12,131.00	$ -
1.59.23	Rack Mounted Computer		$ 2,936.00	$ -
1.59.24	Laptop Computer		$ 1,835.00	$ -
1.59.25	TG-09 Endcoder wheel		$ 2,548.00	$ -
1.59.26	Vitec Video Card		$ 2,038.00	$ -
1.59.23	Two Day on Site Software Training		$ 3,395.01	$ -
1.59.24	USB Mobile Capture Card		$ 1,019.00	$ -
1.59.25	USB Dazzle Capture Card		$ 92.00	$ -
1.59.26	Two Day on Site Software Training		$ 3,395.01	$ -
1.59.27	Bronze Infinity Plain Service Agreement		$ 1,529.00	$ -

1.60	**Cable and Cable Drum Options**			
	Use this section to offer cable and cable drum options. Number items starting with1.61, 1.62, etc. Use as many numbers as you need.			
1.61				$ -
1.62				$ -