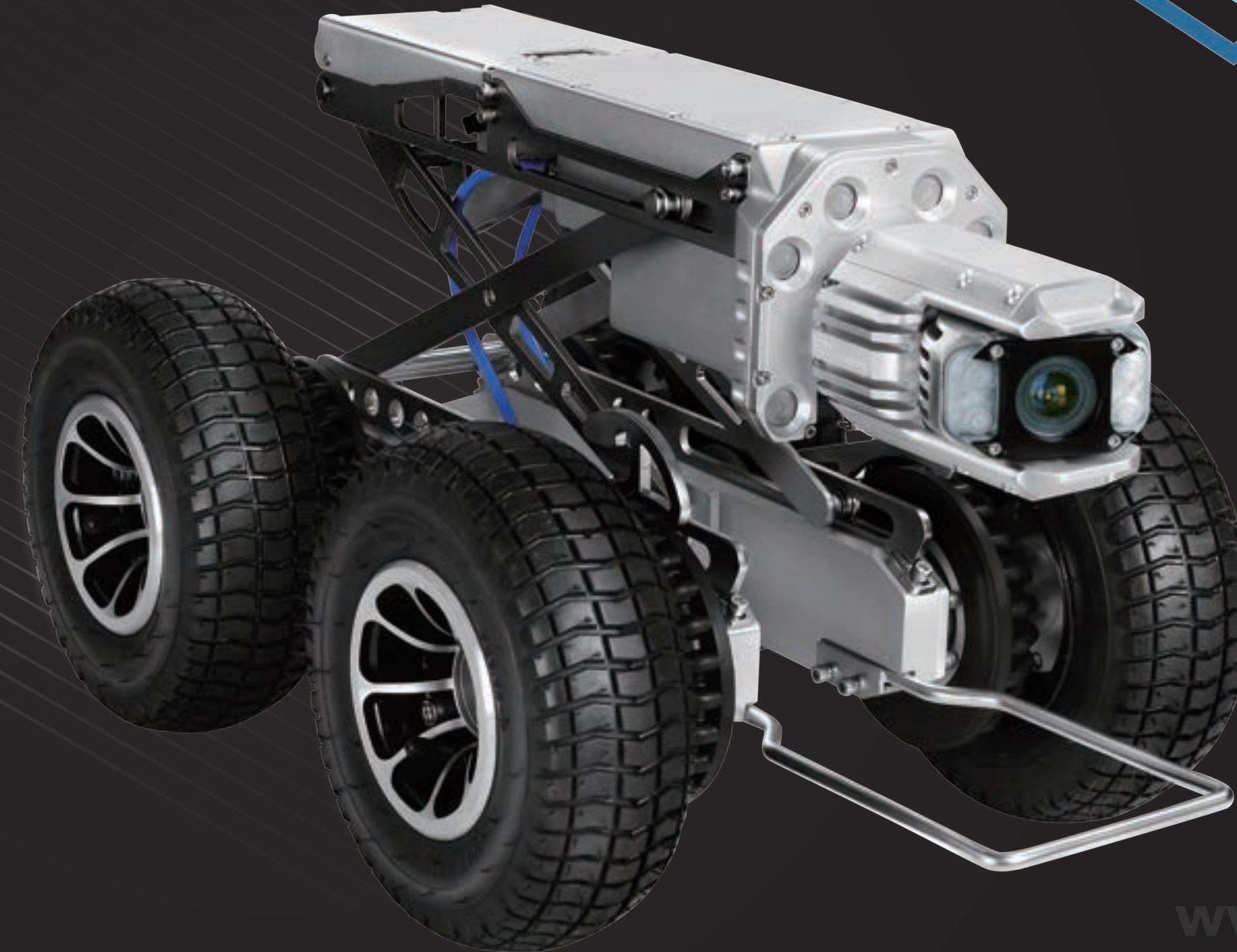




Email: sales@tcr-arabia.com

Phone: +966 138475784

P.O.Box 8143, Dammam 32224

TCR Arabia Company Ltd.

GAS Gardens, King Abdul Aziz Seaport Facility

Dammam, Saudi Arabia

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www.tcr-arabia.com



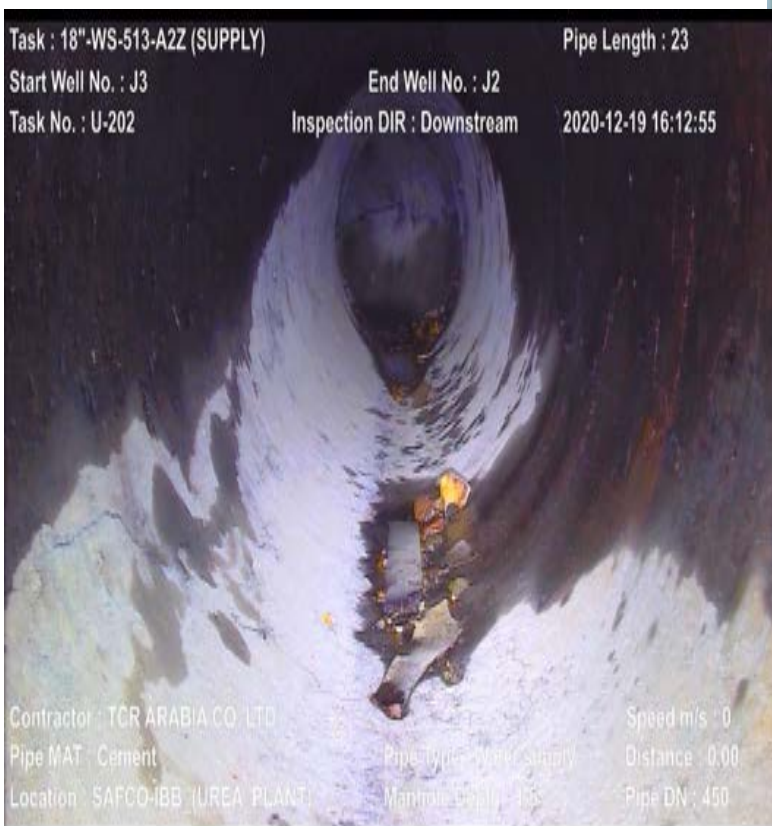
Welcome to TCR Arabia Robotic Inspection Services

NDT, Inspection, Metallurgy, Microbiology, Material Testing (Mechanical & Civil), Heat Treatment, Engineering Consulting, Welder Qualification, Robotic Inspection Services, Calibration Services, Inspection Manpower.



The advanced producing technology and technique were adopted and the quality of the products is in the line with the International standard, thus we own lots of customers from across Saudi Arabia and Gulf Countries.

Relying on our strong technical strength and perfect customer service, we have won the agreement and the confidence of the customers.



Sample Pictures of Inspection





SINGA 100 Pipe Robot Crawler

Modular design

These crawlers are designed with highly modular design and superior inter-changeability between the equipment parts.

Anti-overturning design

The crawler has built-in inclination sensor, so that the operator can know the status of the crawler in the pipeline in real time to avoid damages.

Report software

The equipment can be installed with our own report software, or install the third party software such as WINCAN to process video detection data and generate professional report files.

The SINGA 100 is a mini pipeline crawler system, which is small in size and suitable for pipes with a diameter of 100 to 600 mm. It has the characteristics of small volume, flexible motion, adjustable crawling speed and so on. It is widely used in various hidden space, narrow space and other real-time image detection, such as: mine detection and exploration, seismic search and rescue, steel pipe weld detection, wind power blade internal detection, pipeline detection, tunnel inspection and other fields.

MAIN SPECIFICATIONS — SINGA 100

Working Diameter	For pipes diameter from 100mm to 600mm; can inspect pipes up to 1200mm with optional items
Standard Camera Head	SONY CCD; 540TVL; Pan 360°, tilt 180°, Auto level; High bright LEDS
Crawler Body	6 wheels drive crawler, equipped with different wheels for different size of pipes
Climbing Capability	MAX.30°
Display Controller	12.1 inch high bright display equipped with 128G hard disk
Control Method	Touch screen or Remote control box
Display Data	Crawler condition, speed, distance, pressure, angle, image, operating interface, Time and date
Display resolution	1024*768
Cable Drum	120m manual cable reel
Power Supply	110/220V

Optional Items for SINGA 100

PTZ Camera Head	SONY CCD; 700TVL; 10× optical zoom; Pan 360°, tilt 270°
Manual elevator	Mounted on the crawler body for bigger pipes
Rear Camera	Better viewing for cable returning
Tractor Base	To make the crawler wider and higher for bigger pipes
Cable reel	Can be upgraded to motorized cable reel, cable length 150-300m optional
Battery	48V 20Ah



- SD1050
Pan Tilt Camera



- Extra Lights



- Extra Lights



- Manual Elevator



- 50mm



- 65mm

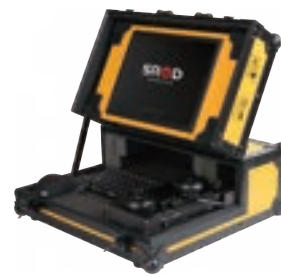


- 130mm

S100 Robot Crawler



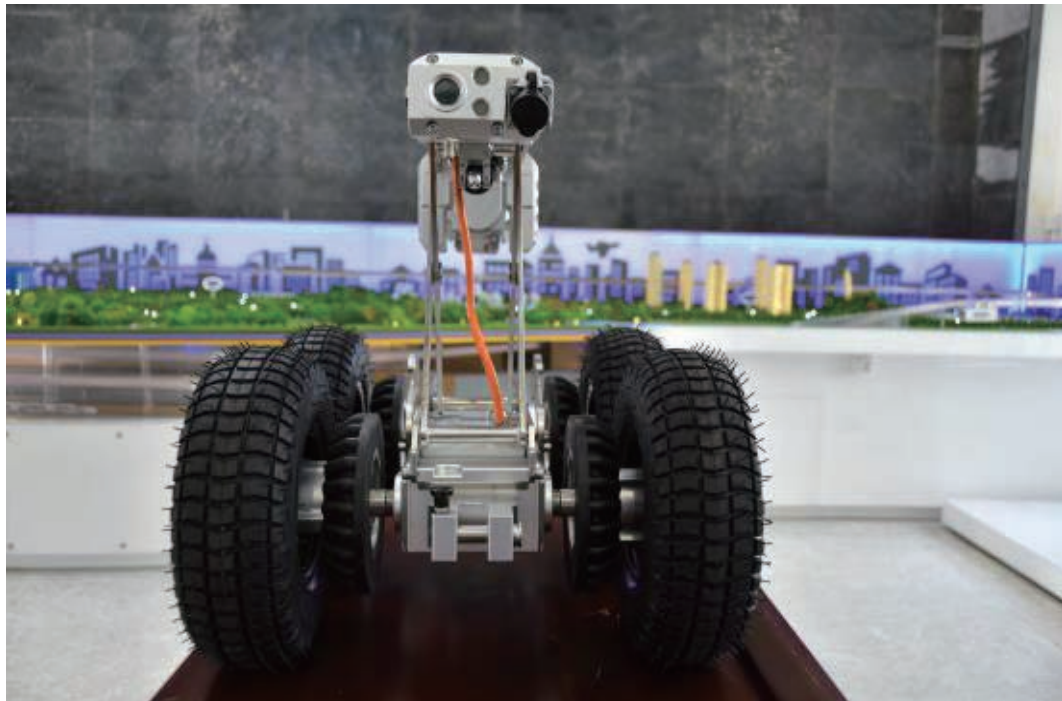
- SD-1090
Pan Tilt Zoom Camera



12.1" Display Controller

Manual/Motorized Reel





SINGA 200C HD Pipe Robot Crawler

SINGA 200C is a durable and reliable pipe inspection system. It is good for pipes diameter from 200mm to 1000mm.



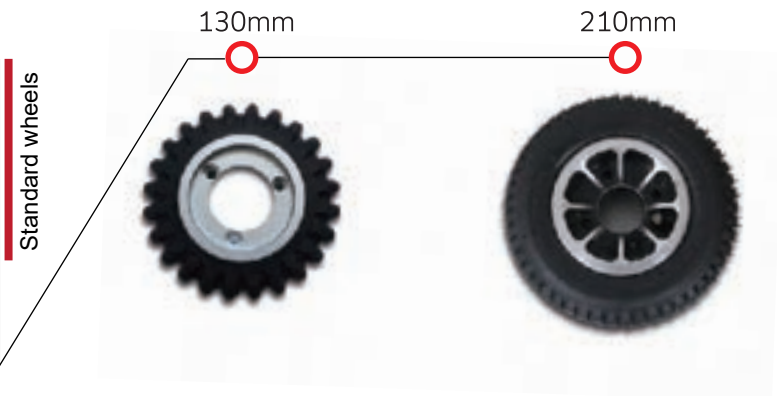
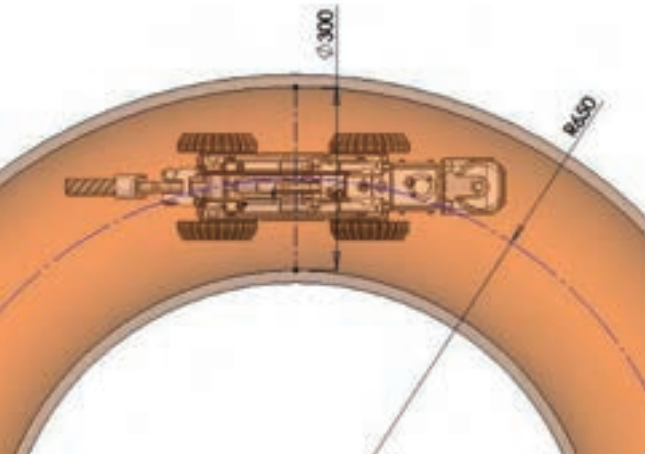
- Front HD zoom camera system, 360-degree axial, 270-degree horizontal rotation.
- Super strong auxiliary light source, the overall picture is clearer and brighter.
- The crawler with an electric lifting platform, rear reversing image system and rear-view light source.
- Imported motor, more powerful, anti-overturning design, real-time monitoring.

MAIN SPECIFICATIONS — SINGA 200C

Working Diameter	For pipes diameter from 200mm to 1000mm
Standard Camera Head	1/3 Panasonic cmos; 1920×1080; 10× optical zoom; Pan 360°, tilt 270°
Crawler Body	4 wheels drive crawler, equipped with different wheels for different size of pipes
Climbing Capability	MAX.30°
Display Controller	12.1 inch high bright display equipped with 128G hard disk
Control Method	Touch screen or Remote control box
Display Data	Crawler condition, speed, distance, pressure, angle, image, operating interface, Time and date
Display resolution	1024*768
Cable Drum	120m manual cable reel
Power Supply	110/220V

Optional Items for SINGA 200C

Cable reel	Can be upgraded to motorized cable reel, cable length 120-200m optional
Battery	48V 20Ah





SINGA 300E HD Pipe Robot Crawler

Singa 300E is a multifunctional pipeline robot system. It is a rugged and versatile robotic camera designed to traverse silt, mud and debris commonly found in storm and sanitary sewers. It is good for pipes diameter 300mm to 2000mm.

- Pan, tilt, zoom and auto focus. Quick and easy to reorient to the current location.
- Main and auxiliary light source design, the overall picture is clearer.
- The crawler with an electric lifting platform, rear reversing image system and rear-view light source.
- Imported motor, six-wheel drive, more powerful, anti-overturning design,real-time monitoring.

MAIN SPECIFICATIONS — SINGA 300E

Working Diameter	For pipes diameter from 300mm to 2000mm
Standard Camera Head	1/3 Panasonic cmos; 1920×1080; 10× optical zoom; Pan 360°, tilt 270°
Crawler Body	6 wheels drive crawler, equipped with different wheels for different size of pipes
Climbing Capability	MAX.30°
Display Controller	12.1 inch high bright display equipped with 128G hard disk
Control Method	Touch screen or Remote control box
Display Data	Crawler condition, speed, distance, pressure, angle, image, operating interface, Time and date
Display resolution	1024*768
Cable Drum	120m manual cable reel
Power Supply	110/220V

Optional Items for SINGA 300E

Cable reel	Can be upgraded to motorized cable reel, cable length 120-200m optional
Battery	48V 20Ah



S300 Crawler



12.1" Display



Remote Controller



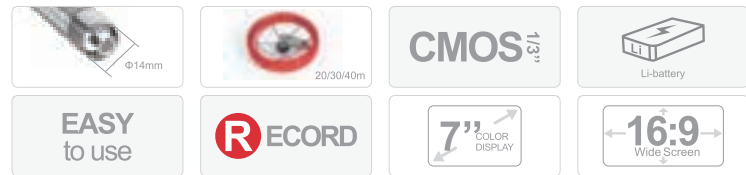
Cable Reel



P-EYE P14

14mm Drain / Pipe Inspection Camera with 20m, 30m or 40m (66, 98 or 131ft) cable

- 1/4" CMOS camera, 90° vision angle, 720H x 576V pixels
- Camera Size $\Phi 14\text{mm} \times 126\text{mm}$ (without spring)
- Sapphire glass lens cover, 6 white LEDs
- Diameter of camera: 14mm, Focus Distance 10cm (approx)
- Water proof level, 10m underwater (camera fix on cable)
- Push cable dia. 4.8mm
- with distance counter feature
- 7" LCD color monitor
- SD Card slot to store still pictures or record videos
- One push record button
- LED brightness control buttons
- Rechargeable battery lasts up to 8 hours
- 20m, 30m or 40m (66ft, 98ft or 131ft) fiberglass push rod
- Rotatable cable reel mounted in case for convenient operation
- Waterproof ABS suitcase with all parts included



Highly flexible $\Phi 14\text{mm}$ camera head



Optional feature: Built in 512hz Sonde



Passing through 90° bends
in a DN 30mm pipe



With Ball Guide (dia. 30mm)

Specifications

Camera Head

Sensor	CMOS
Head Dimention	14mm(dia.)x14.5mm(Length)
Camera Material	304# Stainless Steel
View Angle	90° wide angle
Lens Cover	Sapphire glass
Leds	6 High Bright White LEDs
Water Proof	IP68/10m Under Water

Cable Reel

Material	Fiberglass Rod Cable
Wheel	Stainless Steel Wheel
Cable Length	20,30 or 40 Optional
Connector	Gold Touch-Point Connector
Rotation	Rotatable in the suitcase
Wheel Diameter	33cm
Cable Diameter	4.8mm

LCD Display and DVR

LCD Resolution	800x480 pixels
Video Compress	MPEG-4
Recording	Video and audio recording
Picture	Picture shot function
LCD Size	7 inch
Menu Language	9 Languages
Panel Control	Any functions through buttons
External Memory	SD Card (MAX. 32GB)



P-EYE P23

23mm Drain/pipe Inspection Camera System with 20m, 30m or 40m (66, 98 or 131ft) cable

(14mm Camera System with 20-40m red color rod cable)

- 1/3 inch CMOS camera, 120° wide view angle
- stainless steel short camera head, IP68 water proof level
- Sapphire glass lens cover, 12 white LEDs
- Diameter of camera:23mm, suitable for pipe dia,25-150mm(1"-5.9")
- 20-40m fiberglass rod cable with stainless reel
- One touch record/still images button
- 7" TFT LCD monitor with DVR
- Rechargeable High capacity Li-battery for 5 hours continuous working
- Compact, Rugged and waterproof design





Φ23mm(0.9")



20/30/40m

CMOS

1/3"



Li-battery

512
sonde



RECORD

7"

COLOR
DISPLAY

16:9

Wide Screen



Compact, Rugged and
Waterproof Design



Convenient Transportation



Easy to Carry



Removable Control box
with keyboard

Specifications

Camera Head

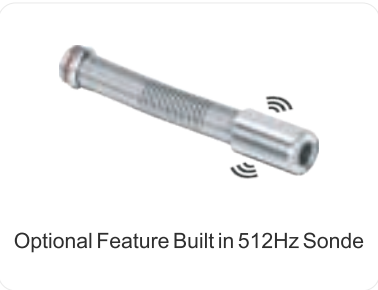
Sensor	1/3" CMOS
Head Dimention	23mm(dia.)x45mm(Length)
Camera Material	304# Stainless Steel
View Angle	120°wide angle
Lens Cover	Sapphire glass
Leds	12 High Bright White LEDs
Water Proof	IP68/10m Under Water
Focus Distance	20cm(Approx)

LCD Display and DVR

LCD Resolution	800x480 pixels
Video Compress	MPEG-4
Recording	Video and audio recording
Picture	Picture shot function
LCD Size	7 inch
Menu Language	9 Languages
Panel Control	Any functions through buttons
External Memory	SD Card(MAX.32GB)

Cable Reel

Material	Fiberglass Rod Cable
Wheel	Stainless Steel Wheel
Cable Length	20,30 or 40 Optional
Connector	Gold Touch-Point Connector
Wheel Diameter	33cm
Cable Diameter	5.2mm(0.2")

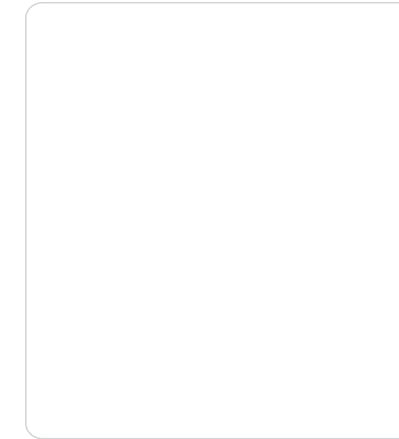




P-EYE P50B-2.0

SROD PAN TILT push camera is suited for inspecting of sewer, drains, vessels, pipe walls and tanks. The camera sensor is protected by a durable, scratch proof sapphire lens. The camera head is made of aluminum and stainless steel, and is IP68 waterproof (withstand up to 10 bar water pressure). The white LED lights provide intense homogeneous illumination. The control unit is equipped with a 7" color screen monitor. All the details of an inspection can be viewed on site, saved as video and image directly to a USB flash drive or memory card.

- 360 degree rotation camera head, Pan 360°, Tilt 180°
- 1/3CMOS;1.3MP pixel HD camera head, waterproof up to 10 bars
- 7 inch touch screen
- Video recording and photography function
- With joystick to control camera pan and tilt rotating
- Dia.9mm 60m fiberglass copper axis cable , it can make good camera image for long cable
- Soft keyboard to typewrite the words
- Camera video resolution is 720P
- Built in Li-ion battery inside ,support unit working more than 5 hours
- Digital meter counter function, error is less than 1%



Specifications

PT Camera Head

Camera size Ø50mm x 154mm, sensor 1/3" CMOS ,1.3MP pixel
 Waterproof IP68 up to 10 bar
 View range 120°
 Rotation: Pan 360°, Tilt 180°
 lens position automatic reset
 Slip coupling for rotation axle
 6pcs high light LED lighting adjustable
 Detachable with pins type connection to Cable Reel
 Lens window sapphire glass

Cable reel

Fiberglass push rod cable
 Cable diameter ø9mm
 Cable length from 60m to 150m optional
 Reel size 70 x 28 x 84cm

7" Control unit

7" Touch Screen with joystick
 PT camera Joystick
 AHD DVR SYSTEM with recording 720P video
 Soft Keyboard real time typewriting
 Digital meter counter function, display on the screen
 Rechargeable Li-ion Battery Pack
 Battery level indicator

Skid

Different size of skids are provided for varies pipe ranges

