

When the need to see is as important as the need to know

Royal

VIDEO & COMMUNICATION SYSTEMS
A DIVISION OF ROYAL SERVICE & RENTALS, INC.

APPLICATIONS:

- Sub-sea (in-hole) BOP & Riser inspection
- Sub-sea in-hole fishing assistance
- In-hole bridge plug inspection
- Small borehole inspections
- Large size casing inspection (adjustable OD centralizers)
- Casing/casing patches
- Wellhead inspections
- Water well inspections

FEATURES:

- Totally self contained 8'x'10' shipping & control module
- 100% redundancy: camera, recorder, controls & winches
- Optional satellite transmitted video to remote operations
- Input power requirement: 240 VAC single phase 45 AMP
- Camera diameter: 1.750" (stainless steel construction)
- Dual viewing camera capacity (side & downward view)
- Total shipping weight of 10,000 lbs
- Color cameras & flat screen displays
- Depth capacity to 5,000 feet
- High intensity LED light system
- Overlay digital counter
- Full zoom/focus capabilities
- Full 360° pan capability
- Provides real time video

ROYAL'S DOWN HOLE SUB-SEA DEEP WATER CAMERA SYSTEM

8' X 10' MODULE



CONTROL ROOM



HIGH INTENSITY LED SYSTEM

DOWN HOLE EQUIPMENT TV WINCHES



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ROYAL'S DOWNHOLE SUB-SEA DEEP WATER CAMERA SYSTEMS INFORMATION AND SPECIFICATIONS

ROYAL'S DEEP WATER CAMERA SYSTEM comes equipped with (2) two CCD color cameras. The **WC1750** model provides dual angle viewing video, allowing improved viewing and inspection by the operator stationed at the surface. The 1.750" OD expandable to 24" OD provides video from 90° side angle and straight down. This is a great tool for inspection of: boreholes, vertical shafts, casing, drill pipe, sub-sea BOPs, water wells and work string tubing.

The **WC1750 Model** camera provides a full 360° viewing rotation while providing real time video from depths of 5,000 feet (1500 meters). This specially designed camera housing is sealed and supports a positive Nitrogen charge of 15 PSI to provide a submersed 2,500 PSI pressure rated housing capable of operating safely at depths of 5,000 feet (1500 meters) with the combined factors listed above and below this makes the **WC1750** camera an ideal tool for deep water inspection.

WC1750 CAMERA FUNCTIONS / FEATURES INCLUDE:

- 480 TV line CCD res
- Electronic iris
- Sensitivity 1 Lux
- Variable light intensity
- Stainless steel housing
- 1^{3/4}" OD x 22" overall length
- Variable camera rotation speeds
- Rated temp application up to 180° F
- Internal diagnostic check system
- Equipped with variable lighting for job specific applications
- Stainless steel expanding centralizer system for multi ID applications

ROYAL'S BT-9600 MODEL DEEP WATER CAMERA SYSTEM provides down view real time color CCTV video allowing downhole viewing and inspection by the operator stationed at the surface. The 3" OD expandable to 36" OD is a great tool for inspection of larger type ID inspections such as: boreholes, vertical shafts, casing, sub-sea BOPs, water wells and sub-sea risers.

The **BT-9600 Model** provides real time video from depths of 5,000 ft. (1500 meters). The entire camera housing is sealed and supports a positive Nitrogen charge of 15 PSI to assist with pressure rating of 2,500 PSI housing makes the **BT-9600** camera indispensable.

BT-9600 CAMERA FUNCTIONS / FEATURES INCLUDE:

- 470 TV line CCD res
- Electronic iris
- Sensitivity 10 Lux
- 94° viewing angle
- Variable light intensity
- Stainless steel housing
- Variable camera rotation speeds
- Rated temp application up to 180° F
- Internal diagnostic check system
- 3" OD x 26" overall length
- Equipped with variable lighting for job specific applications
- Stainless steel expanding centralizer system for multi ID applications