

## **Strong Current Capability Workhorse**



### **Phantom<sup>®</sup> HD2+2**

- Dependable ROV for offshore inspection and light work tasks
- For use in moderate to strong currents to depths of 300m (1,000 ft.)
- Accommodates cameras, sonar, tracking, manipulators and custom tooling

### **The Deep Ocean Advantage**

- Well established company with over 20 years of experience & supply to the ROV industry.
- Over 460 ROV systems delivered.
- Broad international customer base, with clients in over 30 countries.
- Diverse industry applications:
  - Military, customs & police
  - Search & recovery
  - Survey & inspection
  - Nuclear & hydroelectric
  - Offshore oil & gas
  - Scientific research
  - Underwater filming
- World class engineering and R&D
- Solutions oriented customer service support
- Rugged reliable products, easy to use & maintain
- Ability to integrate tooling & sensor packages

### **Phantom<sup>®</sup> HD2+2 Applications**

- Outfall/Intake inspections.
- Jack-up and template inspections.
- NDT inspections.
- Mooring and anchor chain monitoring.
- Telecommunication cable inspection.
- Mine countermeasures.
- Body and evidence recovery.
- Oceanographic survey.
- Fisheries research.
- Environmental surveys.
- Marine archeology.

# Phantom® HD2+2

## Features

- Superb video quality,  $\pm 90^\circ$  camera tilt
- Hardwired Phantom control system — easy to troubleshoot and add accessories
- Shock-mounted full perimeter stainless steel crash frame for rugged protection and durability
- Interchangeable components with DOE Phantom Spectrum vehicles
- Enhanced vehicle stability with low center of gravity and torque-balanced horizontal thrusters.



## Specifications

Weight:	120kg	265 lb
Operating depth:	305m	1,000ft
Overall length:	1400mm	55"
Overall width:	686mm	27"
Maximum height:	673mm	26.5"

### Performance - forward thrust:

Normal:	68kg	150 lb
Full:	91kg	200 lb
Lateral thrust:	7kg	15 lb
Vertical thrust:	7kg	15 lb
Payload (with lateral thruster fitted)	4kg	10 lb

### Power requirements

Input Voltage:	100-250vac
Frequency:	50/60Hz
Power Rating:	6kva
User Power Available	
– Instrumentation:	24vdc @6A
– Auxiliary Power:	80vdc @ 0.6A

**Lights:** Tungsten-halogen 2 X 250 Watt. 3 settings

## Camera

DOE 18:1 optical zoom high-resolution color camera  
PAL/NTSC >470 Lines— 1/3" CCD  
Sensitivity 1 Lux @ f1.4  
Auto-iris, wide angle lens, viewing angle 7°-58°  
Auto/Remote focus select  
External motorized camera tilt  $\pm 90^\circ$   
Built-in video switch for 2nd Camera  
1,000 m (3,300 ft) rated, recessed and hardened port

## Instrumentation

Fluid-gimbaled fluxgate compass. Accuracy:  $\pm 3^\circ$   
Electronic depth gauge. Accuracy:  $\pm 1\%$  fsd.  
Auto heading and auto depth  
Audio feedback of ROV condition  
Leak detector  
Onscreen graphic video display

## Standard Umbilical Tether

Lengths: 168m (550'); 335m (1,100'); 670m (2,200')  
Diameter: 20mm (0.8")  
Weight in fresh water: Neutral

## Options

- Cable reels and slip-ring units available.
- Sonar
- Navigation and tracking systems
- Additional cameras & lights.

- Set additional buoyancy. +3kg/6.6lb Payload.
- Customized versions available.
- DOE single function manipulator.
- Sensor packages.
- Additional components on request