

PHANTOM® P-150

POWERFUL • EXPANDABLE • RUGGED

- Designed for video stability in confined/inaccessible spaces
- Access through 20" dia. manholes and into PWR Recirc Piping
- P150 open-frame design allows easy integration of additional sensors; 2 functions manipulator for FME retrieval, UT gauge, LED lighting schemes, HD camera
- Unmatched video stability in Ultra-Compact ROVs
- Two Horizontal and Two "Vertrans" thrusters, with additional Thrusters/configurations available
- No electronics in the sub unit ensures reliability in areas of high radiation
- Hardwired for fast and easy integration with accessories and easy fault detection
- Designed for nuclear industry with stable materials / FME concerns as a priority



NUCLEAR PWR APPLICATIONS OF THE PHANTOM® P-150

- Upper and Lower Internals, lifts and visual examination
- RWST visuals
- Small object identification and retrieval
- Recirculating piping
- Support of Tri-nuke vacuuming operations, both flange and vessel floor
- Vessel inlet and outlet visual exams
- Vessel Flange pre/post cleaning visual examination

CONVENTIONAL APPLICATIONS OF THE PHANTOM® P-150

- Potable Water Tank
- Wastewater Treatment
- Elevated/in-ground holding tanks

THE DEEP OCEAN ENGINEERING ADVANTAGE

The Deep Ocean Engineering brand is well established with over 20 years of experience supplying the robotics industry. Over 500 ROV systems have been delivered to a broad international customer base with clients in over 30 countries. Our internationally acclaimed system designs are strong, resilient, and rugged with the ability to integrate tooling and sensor packages. Our dedicated customer service, support, and technical training is unparalleled.

VEHICLE SPECIFICATIONS*	
Maximum working depth	53.3m (175 ft)
Length	64.25cm (25.30 in)
Width	35.24cm (13.875 in)
Height	29.21cm (11.5 in)
Weight	18 kg (40 lbs)

TOPSIDE	
Console	NIS-301 Nuclear Inspection System. Software run by rack mounted computer. Includes rack mount Power Supply and 1 space, pull-out flip-up monitor
Pilot Box	2 Joysticks Pilot Box on 15' deck cable Auto depth, camera focus / zoom

CHASSIS	
Hard anodized aluminum, non-corroding, and shock resistant	
Foam Buoyancy with replaceable skid cover plate	
Safety wired stainless hardware	
FME requirements met for PWR/BWR environments	

THRUSTERS	
4 Shaft driven 48VDC brushed motors	
Individually controlled	
Mineral oil filled compensator on shaft seal	

OPTIONS	
<ul style="list-style-type: none"> • Radiation tolerant cameras • Rear facing camera (Color, B/W, Low Light) and light combination • Depth pressure transducer • S-Video functionality on DOE Smart / Zoom camera • Video Overlay System with options to display customer tooling 	<ul style="list-style-type: none"> • UT thickness gauge • 2 function manipulator • Spot Cleaning Brush • Technical Training • Optional 500ft Umbilical

UMBILICAL	
Diameter	13.9mm (0.55 in)
Minimum dynamic bend radius	245mm (9.6in)
Weight in Air	7.0 kg (15.4 lb)
Weight in Water	3.2 kg (7.0 lb)
Length	53m (175ft) with optional 114m (375ft) deck cable

CAMERA	
DOE Smart / Zoom Camera	
1/4 type super HAD CCD imaging	
380K pixels with 18:1 optical zoom Auto / Manual focusing	
Depth Rating: 122m (400ft)	
Tilting + / - 90 degrees	
1.0 lux typical at f1.4	
NTSC / PAL versions available, 75 ohm coax or Y/C output available	

LIGHTING	
2 x 120 VAC (300 Watt) dimmable light circuits	
Supports 300 watts of LED / Halogen lighting per circuit	
1 or 2 lights can be mounted to tilt with camera	

* Specifications subject to change