

PHANTOM® FIREFLY

POWERFUL • EXPANDABLE • RUGGED

Phantom FireFly remotely operated ROV; when used in nuclear outage support, FireFly's portability and ease of deployment help shorten facility down time.

Sized to penetrate through and below the top guide and core plate

- Normally used for steam dryer visual exam during BWR scheduled outages. All materials are suitable for use in nuclear support.
- Torque balanced thrusters provide a high degree of control and maneuverability in the confined environments.
- Minimal electronics in the sub unit, ensuring reliability in areas of high radiation.
- All system fuses located in the surface control console for fast access.



APPLICATIONS OF THE PHANTOM® FIREFLY

- Nuclear BWR

THE DEEP OCEAN ENGINEERING ADVANTAGE

Deep Ocean Engineering is a USA based manufacturer of powerful, expandable, rugged underwater and surface drone vehicles, headquartered in the technology capital of the world, Silicon Valley, California. Its legendary Phantom RO lines of ROVs and USVs, many of which have been in use around the world for decades, are integrated with the latest digital technology and the highest quality components available in the market today, including thrusters, cables, sonar, cameras, lighting, navigation software and power.

VEHICLE SPECIFICATIONS*

Maximum Working Depth	46m (150 ft)
Length	190mm (7.5 in)
Width	146mm (5.8 in)
Height	343mm (13.5 in)
Weight	6.35kg (14 lb)

CAMERA TILT PLATFORM

Operational arc: +30 Degrees / - 150
Degrees from Horizontal 9 Degrees per second

LIGHTING

4 x 20 watt camera mounted lamps
Variable light control, 2 light circuits

THRUSTERS

Brushed 48 VDC
Shaft driven
Individually controlled
Mineral oil filled compensator on shaft seal

OPTIONS

Spares kits
Technical training

UMBILICAL

Minimum Bend	245mm (10in)
Weight in Air	8.5kg (18.5lb)/per 175 in
Weight in Water	3.2kg (7lb)/per 175 in

CAMERA

DOE 10:1 Color zoom	
Video Rating	75 ohm coax, y/c
Resolution	470 lines of TV
Sensitivity	1.5 Lux
Viewing Angle	5 Degrees – 46 Degrees
Length	5.5 in
Diameter	2.8 in
Weight in Water	0.2 lb
Air Weight	1.4 lb

CHASSIS

Hard Anodized Black aluminum lower unit
Houses camera/lights assembly
Foam Buoyancy houses 4 thrusters
Protected by skid plates
Safety wired stainless hardware
Non-corroding

* Specifications subject to change