

Investigator 90

Observation Class ROV

A new creation of observation ROV-I90, with an expandable vehicle design, allows operators to fulfill their expectations to customize a full-function ROV with the specific application. Moreover, I90 ROV uses advanced DWTEK self-developed thrusters with the advanced circuit design of the miniature motor drivers to endure high voltage and operating power.



Features

Fully customized design for different range of underwater applications

All-electric ROV system with the expansible capability frame design

Advanced thruster and circuit design

Application

- Oil & Gas
- Offshore Wind
- Submerged Infrastructure & Construction
- IRP Inspection, repair, maintenance
- Search & Rescue

Surface Control Unit

A 17" Monitor 1U Drawer

- * Modular design for easy update & maintenance
- * Live & recorded video display
- * User selectable display modes
- * Diagram OSD design
- * Live camera switching

B 5U Control Rack

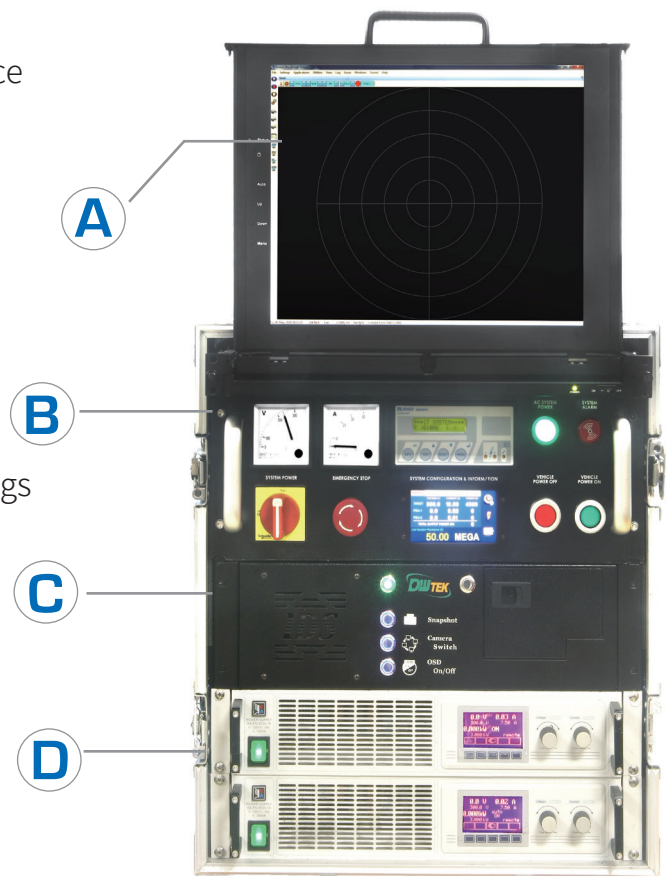
- * LIM detection & power monitor
- * 4.3" touch panel for system feedback & settings

C IPC & IDS

- * Industrial Personal Computer & Integrated Digital Recording System
- * Digital record, playback & snapshot
- * Video workshop

D Power Supply Unit

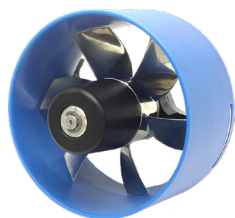
- * 6kW output in total
- * New advanced technology for power compensation
- * 3.5kW output guarantee up to 2,000 meters



54 (L) x 60 (W) x 183 (H) cm

**All product descriptions and specifications are subject to be changed without notice

Overview & Add- on product



Thruster

Horizontal thruster:
750w*4 (standard)
Vertical thruster:
750w*4 (standard)
Overload protection
Optional: 1200W thruster



Sensor

Add on products: PCG100
or customized options

Others: hydronic tools,
DNV, INS, latch, sonar



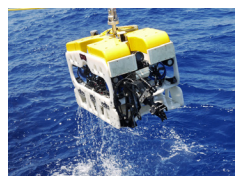
Camera

Mini SD camera:
Max. 4 mini SD cameras
are available



LED

2 up to 6 intensity 6900 lumens
LED lights
Dimming function



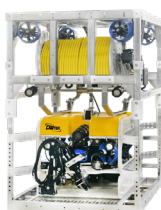
Manipulator

Optional: 5 axis and 7 axis



16ft or 20ft ROVs Container Service

DNV, GL Certified Control Containers for easy
MOB & DEMOB. Equipped with the pilot chairs,
integrated control panel, joy stickers, display
screens, power supply, work stations, AC, and
alarm system as well.



Tether Management System (TMS)

2 Types of TMS: Top-Hat & Cage
Variable tether speed and depth rating



LARS

Optional



HD Camera/ SD Mini Camera

Optional

Other Add - on Products

Sensor / Hydronic tools / DNV / I
NS / Latch / Sonar / TSS

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Vehicle Specification

| Specification | |
|------------------------|--|
| Dimensions (L x W x H) | 1100 * 700 * 490 mm |
| Weight in air | 120 kg |
| Depth rating | 500 m (Standard) 1,000 m (Optional) |
| Payload | 27 kg |

| Vehicle Power and Performance | |
|-------------------------------|--|
| Propulsion | Horizontal thruster: 750 W *4 Vertical thruster: 750 W *2 |
| Thrust | Forward/Reverse: 60/30 kgf |
| | Lateral: 33.5 kgf |
| | Vertical: 31 kgf |

| Vehicle Manipulators and Tooling | |
|----------------------------------|-------------------------|
| Manipulators | 5 axis *1 (Optional) |
| Wrist camera assembly | SD camera *1 (Optional) |

| Vehicle Cameras and Lighting | |
|------------------------------|-------------------------------|
| Cameras | HD camera *1 (Standard) |
| | Up to 4 SD cameras (Optional) |
| Lighting | 150W LED *2 (Standard) |

| Vehicle Control and Navigation | |
|--------------------------------|---|
| Automatic control | Optional |
| Heading and altitude sensors | Heading (Standard) Altitude (Optional) |
| Depth sensor | Standard |
| Navigation sensor | Standard |
| Obstacle avoidance sonar | Optional |
| DVL | Optional |
| INS | Optional |
| USBL | Optional |
| Cable tracking system | Optional |

| Vehicle optional Power and Data Interfaces | |
|--|---|
| Data links | Optical fiber |
| Power | Input (VAC): 220V Single - Phase 50/60Hz Output (VDC): 300V |

| Tether Management System (TMS) | |
|--------------------------------|---|
| Type | Garage |
| Propulsion | Up to 4 thrusters (Optional) |
| Electro-optical tether | 150 m |
| Cameras | SD camera x2 (Standard) Up to 4 SD camera (Optional) |
| Lighting | 23 W *2 (Standard) Up to 4*23 W LEDs (Optional) |
| optionals | USBL, current meter, sonar |

| Launch and Recovery Systems (LARS) |
|------------------------------------|
| Optional |

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