

Schilling Robotics Ultra Heavy Duty (UHD)-III ROV

The UHD-III remotely operated vehicle (ROV) system is the world's most advanced 250hp vehicle delivering market-leading performance for the most difficult deepwater tasks handling all ultra-heavy-duty requirements. The UHD-III has the capability and has been tested to meet the full requirements of API 53 standards for secondary BOP intervention, without the need for any additional equipment. With 150-hp available for intervention applications, the UHD-III delivers combined pressures and flows from its ISOL-8 pump that cannot be achieved with conventional ROV systems. It is capable of performing high horsepower tooling applications whilst maintaining its maneuverability and StationKeep. This enables the users to perform other demanding tasks, including well intervention and hydrate remediation, using dual fluids that can be carried onboard the ROV negating the requirement for additional pumping skids.

- 250-hp ROV and 150-hp auxiliary output
- Meets the full requirements of API 53 standards for BOP intervention for less than 45-second ram closure
- 100+ gallon multi-fluid reservoir capacity (on-board ROV)
- Intelligent power management system providing highest thrust performance for ultra-heavy-duty tasks
- Industry's most accurate StationKeep with independent thruster control
- High-definition (HDEV) video suite
- 60-minute modular maintenance
- High-integrity hydraulic system – all stainless-steel tubing



In addition to providing the most comprehensive intervention capability available, the UHD-III incorporates features that further enhance the productivity of offshore operations. The system leverages the benefits of modular design for rapid maintenance, first introduced with Schilling Robotics' HD ROV. This modular approach improves maintenance times by a factor of 6-to-1 compared to traditional vehicles, and ensures that ROV operations are more reliable and productive than ever before. Performance of intervention tasks has also been enhanced through the integration of a high-definition video suite (HDEV). System-level design addresses all the major equipment elements (ROV, TMS, LARS, vans, and umbilical) to effectively optimize offshore operations. All aspects of the system have been aligned to provide exceptionally high reliability, combined with ease of operation and maintainability.

ISOL-8 Auxiliary Tooling Pump/Valve Packs

To meet the most demanding intervention requirements, the pressure and flow of the ISOL-8 pump can be controlled from the surface. The pump is capable of producing a maximum output of 50-gpm at 5,000-psi., sufficient to actuate BOP shear rams and achieve full closure in 45-seconds or less as specified by API 53. This level of performance is attained through an 8 double acting pump unit that can operate with hydraulic fluid, water glycol or seawater. For tooling/intervention applications the ISOL-8 pump can be configured with 4 or 8 double acting pumps providing the option of single or dual output. In dual mode the pump can deliver dual fluids simultaneously offering fully independent pressure and flow control of each circuit through the onboard Schilling Robotics' Valve Packs. The Valve Packs design follows Schilling Robotics principle of rapid maintenance and repair, the valves are quickly reconfigurable, provide onboard diagnostic and can be rapidly changed with no requirement to drain an oil filled chamber as each valve is self compensating.



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Specifications

Working Depth:	3,000 mts & 4,000 mts
Docking Interface SWL:	13,025kg
Through-Frame Lift:	3,500kg
Weight in Air:	5,600kg
Dimensions:	3.5m X 1.9m X 2.1
Payload:	Up to 450 kg

Peak Thrust Performance

- Forward/ Aft/ Lateral: 1,200kgf
- Vertical - Up/ Down: 1,000kgf
- StationKeep: 10cm

Equipment Fit

- Manipulators: Any Schilling Model
- Cameras: SD and HD Options
- Depth Sensor: Valeport
- Heading Sensor: IXblu Nano
- DVL: Teledyne RDI 1200kHz

- Lights: 8 x 120VAC and 2 x 24VDC
- Pan and Tilt: Schilling Electric
- Valves: (14) 8LPM , (2) 32LPM , (1) 160LPM

Hydraulic System

- HPU: 250-hp
- Auxiliary: 150-hp
- Operating Pressure: 207Bar
- Thrusters: (7) Sub Atlantic 420

Digital Video Suite

The digital video-over-Ethernet system can transport both HD and SD video, through H.264 compression, that can be annotated and recorded via the video PC on surface. The system can record up to 4 x HD streams simultaneously and redundant HD video recording, annotation, and editing suites are provided as standard.

- High-definition, low-latency streaming video at 1920 x 1080 resolution, 60 frames per second
- Video streaming using H.264 compression over RTSP
- SD low-latency streaming video at NTSC/PAL resolution
- Topside video output: HDMI, NTSC/PAL analog video
- Enables 1080P HD video transmission over standard Ethernet communications