

Schilling Robotics Ultra Heavy-Duty™ (UHD™)-III ROV

The UHD-III remotely operated vehicle (ROV) system is the world's most advanced 250 hp 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+ gal (378+ liter) 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

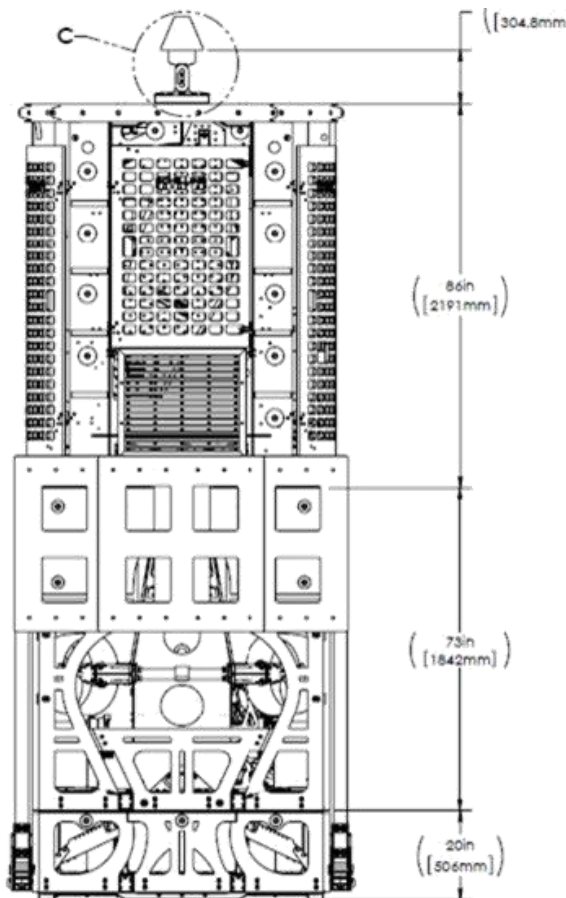


In addition to providing the most comprehensive intervention capability available, the UHD-III incorporates features that further enhance the productivity of offshore operations. The system leverages the benefits of modular design for rapid maintenance, first introduced with Schilling Robotics' HD ROV. 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 system (HDEVs). 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 System

To meet the most demanding intervention requirements, the ISOL-8 pump is capable of producing a maximum output of 50 gpm at 5,000 psi (189 lpm at 345 Bar), sufficient to actuate BOP shear rams, shear and seal, in 45 seconds or less as specified by API 53. This level of performance is attained through an 8-cylinder reciprocating pump that can operate with hydraulic fluid, water glycol or seawater. The pump can deliver multiple fluids, simultaneously offering fully independent pressure and flow control of each hydraulic circuit through the onboard Schilling Robotics multi-function valve packs.

The valve pack 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:	9,843 fsw (3,000 m) or 13,123 fsw (4,000 m)
Docking Interface SWL:	20,062 lbs (9,100 kg)
Through-Frame Lift:	7,716 lbs (3,500 kg)
Weight in Air:	12,346 lbs (5,600 kg)
Dimensions:	11.7 ft x 6.3 ft x 7 ft (3.5 m x 2 m x 2.1 m)
Payload:	992 lbs to 1,433 lbs (450 kg to 650 kg)

Peak Thrust Performance

- Forward/ Aft/ Lateral: 8,680 ft-lb (1,200 kgf)
- Vertical - Up/ Down: 7,233 ft-lb (1,000 kgf)
- StationKeep™: 4 in (10 cm)

Equipment Fit

- Manipulators: Any Schilling Model
- Depth Sensor: Valeport miniIPS
- MRU: iXblue Octans Nano
- DVL: Teledyne RDI 1200 kHz
- Cameras: SD and HD Options
- Lights: (8) 120 VAC and (2) 24 VDC
- Pan and Tilt: (2) Schilling Electric
- Valves, 2 gpm (8 lpm): 14
- Valves, 8.5 gpm (32 lpm): 2
- Valves, 42 gpm (160 lpm): 1

Hydraulic System

- Thrusters: (7) Sub-Atlantic
- HPU: 250 hp
- Auxiliary: 150 hp
- Operating Pressure: 3,000 psi (207 Bar)

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 the surface. The system can record up to 4x 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