

Schilling Robotics Heavy Duty (HD) ROV

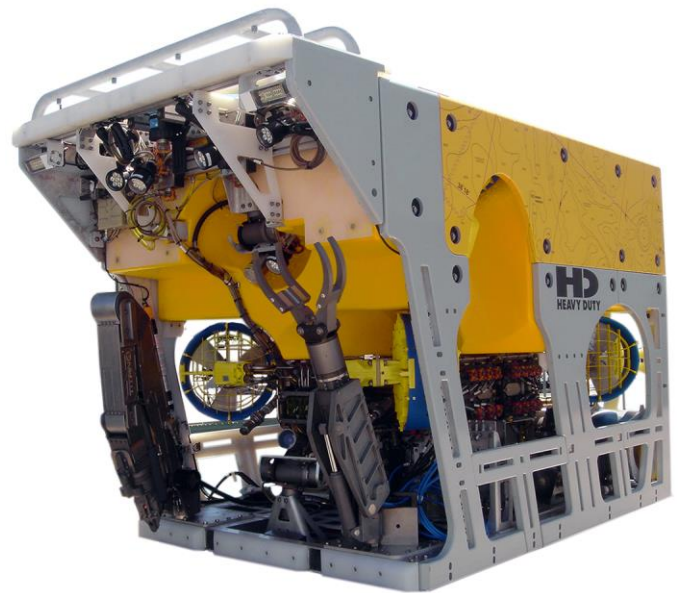
The HD system is an advanced design Remotely Operated Vehicle with class leading performance, reliability, and maintainability. Innovative features in the frame design and modular subsystems coupled to State-of-the-art control system. These attributes make the HD an optimum choice for IMR, drill support, heavy-duty construction operations as well as a vehicle to support research, salvage and military scopes. The compact system footprint is ideal for rapid transportation and mobilization

- Powerful, compact 150-hp HPU with 36-hp aux. output
- Extensive onboard tooling installation space
- StationKeep with independent thruster control
- 60-minute modular maintenance
- High-integrity hydraulic system, including all-stainless tubing

The HD modular design affords superior deck space, flight automation packages, tooling integration, a unique 60-minute maintenance philosophy, and high-integrity hydraulic system. It features substantial space for equipment payload at the vehicle's side and forward deck areas, with payload capacity biased towards the forward area.

Flight Automation

Schilling Robotics' ROVs feature the industry's most accurate StationKeep, which provides a highly stable flight with 10-cm accuracy. This is achieved by independently monitoring and adjusting the speed of each thruster, in response to feedback from the onboard FOG or GYRO. Pilots can station the vehicle close to subsea structures and make precise position adjustments, Pilot assist functions also include AutoTrack mode whereby the system can accept survey data from a pre-existing route to enable the vehicle to fly a pre-planned route, at a speed controlled by the pilot. In addition the HD is the only vehicle that features an Intelligent Power Management system offering an automated load balancing feature relative to hydraulic power demands levels enabling operations to be completed from a level and stable platform. The advanced feature set provides pilots with the ability to increase productivity on the most challenging subsea tasks.



Tooling Integration

The HD's superior on-board tooling capacity, combined with versatile hydraulic tooling interfaces and simple control system, allow for rapid tooling integration. Tooling skids up to 3,000kg can be connected to the mounting interfaces beneath the ROV. Mechanical interfaces also provide for mounting tooling on the fore and aft vehicle faces. All equipment can be controlled from the work-flow based Hammerhead control system, the system enables users to rapidly configure and integrate additional tooling and sensors.



60-Min Maintenance

Major subsystems can be difficult and time consuming to repair on traditional ROV systems. Schilling Robotics has redesigned these to allow for maintenance in 60-minutes or less. This modular approach for all subsystems (controls, hydraulic, and electric) results in an overall reduction in maintenance time by a factor of 6 to 1. This increases a vessel's operational uptime, which is critical in the deepwater environment.

High Integrity Hydraulic System

The redesigned hydraulic system is manufactured entirely from CNC formed stainless steel tubing throughout the vehicle. By eliminating flexible hoses, the hydraulic system has the greatest possible integrity to avoid leakage. This superior level of core system integrity greatly improves environmental safety and reduces maintenance and repair requirements.

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Specifications

Working Depth:	3,000 mts & 4,000 mts (Optional 5,000 mts)
Docking Interface SWL:	9,700kg
Through-Frame Lift:	3,000kg
Weight in Air:	3,600kg
Dimensions:	2.9m X 1.7m X 1.9m
Payload:	150 kg to 250kg

Peak Thrust Performance

- Forward/ Aft/ Lateral: 900kgf
- Vertical - Up/ Down: 850kgf

Equipment Fit

- Manipulators: Any Schilling Model
- Cameras: SD and HD Options
- Depth Sensor: Valeport
- Heading Sensor: IXblue Nano
- DVL: RDI Navigator 1200kHz
- Lights: 8 x 120VAC and 2 x 24VDC
- Pan and Tilt: Schilling Electric
- Valves: (14) 8LPM , (2) 32LPM , (1) 160LPM

Hydraulic System

- HPU: 150-hp
- Auxiliary: 36-hp
- Operating Pressure: 207Bar
- Thrusters: (7) Sub Atlantic

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