

Schilling HD™ 150 hp ROV

The HD™ system is a highly advanced remotely operated vehicle (ROV) with class-leading performance, reliability, and maintainability. Innovative features in the frame design and modular subsystems have been coupled with a 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 auxiliary 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.

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 6,173 lbs (2,800 kg) 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, which enables users to rapidly configure and integrate additional tooling and sensors.



FLIGHT AUTOMATION

Schilling Robotics' ROVs feature the industry's most accurate StationKeep™, which provides highly stable flight with 4 in (10 cm) accuracy. This is achieved by independently monitoring and adjusting the speed of each thruster, in response to feedback from the onboard flight sensors. 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 demand 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.





60-MINUTE MAINTENANCE

Major subsystems can be difficult and time consuming to repair on traditional ROV systems. Schilling Robotics has redesigned these subsystems 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 utilizes 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.

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

SPECIFICATIONS

Working Depth:	9,843 fsw (3,000 m)
Docking Interface SWL:	14,771 lbs (6,700 kg)
Through-Frame Lift:	6,173 lbs (2,800 kg)
Weight in Air:	8,377 lbs (3,800 kg)
Dimensions:	9.5 ft x 6 ft x 7 ft (2.9 m x 1.8 m x 2.1 m)
Payload:	551 lbs (250kg)

PEAK THRUST PERFORMANCE

Forward/ Aft/ Lateral:	1,985 lb-f (900 kg-f)
Vertical -Up/ Down:	1,874 lb-f (850 kg-f)
StationKeep™	4 in (10 cm)

EQUIPMENT FIT

Manipulators:	ATLAS SC 7P, TITAN 4, Rigmaster
Depth Sensor	Valeport miniIPS
MRU:	iXblueOctans Nano
DVL:	Nortek DVL500 Compact
Cameras:	SD and HD
Lights:	(6) 120 VAC and (2) 24 VDC
Pan and Tilt: (2) Schilling Electric	(2) Schilling Electric
Valves, 2 gpm (8 lpm):	14
Valves, 8.5 gpm (32 lpm):	2
Valves, 26.5 gpm (100 lpm):	1

HYDRAULIC SYSTEM

Thrusters:	(7) Sub-Atlantic
HPU	150 hp
Auxiliary: 36 hp	36 hp
Operating Pressure:	3,000 psi (207 Bar)

