

eNovus

The Next-Generation Electric Work Class ROV

The eNovus is a compact work class ROV powered by an environmentally conscious electric propulsion system that includes state-of-the-art control electronics and intelligent diagnostic system.

Tooling support versatility has been increased by including an integrated power and control system for next-generation electric tools and dedicated hydraulic power units (HPUs) for traditional tools and work class manipulators.



FEATURES

Electric propulsion system with intelligent diagnostic system

135-kW electric tooling capacity

Remote piloting and automated manipulator control (RPACT)

Vehicle specifications

| | |
|--------------------|---------------------------------------|
| Weight in air | 7,500 lb / 3,400 kg |
| Dimensions (LxWxH) | 8.5 x 5 x 6 ft / 2.7 x 1.6 x 1.8 m |
| Depth rating | Up to 16,500 ft / 5,000 m |
| Payload | 500 lb / 227 kg |

Vehicle power/performance

| | |
|-----------------|---|
| Electric supply | 235 hp / 175 kW |
| Propulsion | (4) Vector horizontal motors (3) Vertical motors |
| Thrust | |
| Forward/reverse | 1,850 lbf / 8.5 kN |
| Lateral | 1,850 lbf / 8.5 kN |
| Vertical | 1,800 lbf / 8.0 kN |

Vehicle manipulators

| | |
|---------------------------|--|
| Manipulators (2) | Atlas 7-function proportional control T4 SC or Hybrid |
| Wrist camera assembly | Light, laser, and camera |
| Dedicated manipulator HPU | 6 hp / 4.5 kW with 4 gpm @ 3,000 psi |

Electric tool control

| | |
|---------------------|--|
| Power | 135 kW / 180 hp |
| Data interface | Fiber, ethernet, and RS232 |
| Tooling control pod | (2) 10 kW (380 V DC @ 25 Amp) (2) 2.5 kW (48 V DC @ 50 Amp) |

Hydraulic tool control

| | |
|-----------------------|--|
| Dedicated tooling HPU | 35 hp / 26 kW with 10 gpm @ 3,000 psi |
| 10 Station valve pack | Proportional pressure Proportional flow Bidirectional valves |

Vehicle cameras/lighting

| | |
|----------|---|
| Cameras | Standard Definition (SD) High Definition (HD) 3D HD (optional) 4K UHD (optional) Supports up to 8 cameras |
| Lighting | Up to 8 x 200 W (high-intensity LED) |

Vehicle control/navigation

| | |
|------------------------------|---|
| Automatic control | Autonomous control of the ROV Hands-free piloting Fly-by-wire station keeping system Auto heading, depth, and attitude Cruise control Remote piloting from onshore |
| Heading and attitude sensors | Survey-grade gyro Backup flux gate compass |
| Depth sensor | High-resolution digiquartz Backup analog depth sensor |
| Navigation sensor | Doppler velocity log |
| Obstacle avoidance sonar | Kongsberg 1071 or 1171 Tritech SeaKing |

Vehicle optional power/data interfaces

| | |
|------------|---|
| Data links | Multiple RS232 (RS485 optional), Ethernet, optical fiber |
| Power | 24 V DC and 110 V AC |

Tether management system (TMS)

| | |
|------------------------|---|
| Type | Side entry cage or top-hat |
| Propulsion | 2 x horizontal or 4 x vectored for station keeping |
| Electric supply | 86 kVA electro-optical |
| Electro-optical tether | Up to 5,000 ft / 1500 m |
| Cameras | Up to 4 CCD cameras |
| Lighting | Up to 4 x 200 W (high intensity LED) |

Manipulator tool changer (optional)

| | |
|---|---|
| Supports subsea mateable electric and hydraulic tools | |
| Electrical interface | RS232 600 V DC 480 V AC (single or three phase) |
| Hydraulic interface | (4) pressure balanced couplers |
| Visual automation | (4) lights (2) lasers |