

2025 Product Comparison Guide

MISSION SPECIALIST SYSTEMS

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RELEASE YEAR	2017	2024	2019
DESCRIPTION	Modular, configurable 7 thruster / 6 DOF ROV with many expansion options and strong current-handling capability	Modular 4 thruster / 4 DOF ROV designed for power and lift with an upgrade path to Defender	Modular 3 thruster / 3 DOF successor to VideoRay's original Pro Series ROVs
TOPSIDE POWER	Yes	Yes	Yes
SUBSEA BATTERY	Yes	Not currently available	No
LIGHTS	Selectable spot/flood LED 2 x 7600 lumens	Selectable spot/flood LED 2 x 7600 lumens	Selectable spot/flood LED 2 x 7600 lumens
CAMERA	Ultra 4k Smart Camera NVIDIA Jetson Orin NX Processor, 1 TB SSD Opt. rear-facing camera Perception accessories: Voyis & Vaarst Cameras	Ultra 4k Smart Camera NVIDIA Jetson Orin NX Processor, 1 TB SSD	Ultra 4k Smart Camera NVIDIA Jetson Orin NX Processor, 1 TB SSD Opt. rear-facing camera
BASE WEIGHT	17.2 kg (38 lbs)	13.6 kg (30 lbs)	11.8 kg (26 lbs)
DIMENSIONS	71.1 x 39.4 x 23.8 cm (28.0 x 15.5 x 9.5 in)	64.1 x 30.5 x 30.5 cm (25.3 x 12.0 x 12.0 in)	51.5 x 33.0 x 25.7 cm (20.3 x 13.0 x 10.1 in)
DEGREES OF FREEDOM [DOF]	6 DOF: Surge, Heave, Yaw, Sway, Pitch, & Roll	4 DOF: Surge, Heave, Yaw, & Sway	3 DOF: Surge, Heave, & Yaw
DEPTH RATING	300 m std configuration 1,000 m deep configuration	300 meters	300 meters
THRUST	Forward: 23.6 kg Reverse: 15.0 kg Lateral: 8.6 kg Surface: 23.1 kg	Forward: 16.8 kg Reverse: 15.0 kg Lateral: 6.1 kg Surface: 9.5 kg	Forward: 20.3 kg Reverse: 13.0 kg
SPEED	Forward: 3.8 kts Vertical: 0.8 m/s Sway: 0.9 kts	Forward: 4.0 kts Vertical: 0.8 m/s Sway: 0.9 kts	Forward: 4.4 kts Vertical: 0.8 m/s

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BOLLARD PULL	52lbs	50lbs	50lbs
MAX RANGE	Up to 450 m with Performance Tether (PPT) Up to 1.5 km with Fiber Optic Tether and Subsea Batteries	Up to 450 m with Performance Tether (PPT)	Up to 450 m with Performance Tether (PPT)
CONTROL SOFTWARE	Greensea IQ	Greensea IQ	Greensea IQ
MANIPULATOR	2-Function	2-Function	2-Function
INTEGRATED USBL	Blueprint Subsea Seatrac	Not yet available	Blueprint Subsea Seatrac
INTEGRATED DVL	Nortek DVL500 Compact	WaterLinked A50	No
INTEGRATED FL SONAR	Blueprint Oculus Multibeam Tritech Gemini Multibeam	Blueprint Oculus Multibeam	Blueprint Oculus Multibeam
INTEGRATED SIDE SCAN SONAR	Marine Sonic ARC Scout MKII <i>Available 2026</i>	No	No
ROV GPS / GNSS	Yes	No	No
MAX LIFT PILOTING	9.5 kg (20.9 lbs) manipulator payload	10.0 kg (22.1 lbs) manipulator payload	1.4 kg (3.1 lbs) manipulator payload
MAX RETREIVAL	+100 lbs	+100 lbs	+100 lbs
SUPPORTED ACCESSORIES * <small>* Some sensor data does not display or record in Greensea IQ interface and requires an external PC; contact VideoRay for more information.</small>	Cathodic Protection Gauge Ultrasonic Thickness Gauge Flooded Member Gauge Water Quality Sonde NDT Cleaners Industrial Cutter 3 to 7-Function Manip Arms MCM/UXO (Viper, Tornado, ZeroPoint, Sonardyne)	Factory-integrated accessories and sensors not yet available	Cathodic Protection Gauge Ultrasonic Thickness Gauge Flooded Member Gauge Water Quality Sonde
WEBSITE VideoRay.com	/Products/Mission-SpecialistDefender	/Products/Mission-SpecialistAlly	/Products/Mission-SpecialistPro5