

RAPTOR Remote Intervention Tool (RIT)

The Raptor Remote Intervention Tool, or RIT, is essentially a multifunctional subsea crawler platform designed to carry out intervention and seabed operations without relying on large conventional ROV spreads or diver-based operations.

It has integrated manipulation capability, tooling interfaces, cameras, sonar, and anchoring functionality, which means it can undertake a range of subsea activities from inspection and surveys through to anchor handling and maintenance scopes.

Importantly, it's designed around a relatively low logistical footprint compared with larger traditional systems, which is a major advantage for nearshore renewables, offshore wind, and future tidal projects.



Key Features and Specifications

Tracked Vehicle System:

The RIT is a tracked (crawler) system, designed for stability on the seabed.

Anchoring System:

It features an anchor gripping system for secure attachment to components.

Manipulator Arm:

The RIT is equipped with a manipulator arm, such as the Schilling Orion 7 RE, for various intervention tasks.

Power and Hydraulics:

It requires a 240V, 13A electrical input and provides 33kW/60LPM/207BAR hydraulic power for tools.

Sonar and Cameras:

The tool is equipped with sonar systems, such as the Gemini 720id, and multiple cameras, including pan & tilt, for navigation and work supervision.

Depth Rating:

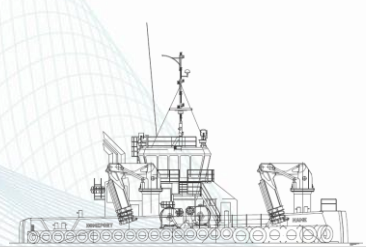
The system is designed for operating depths up to 100 meters

Construction

Item	Specification
Length (Operating)	4.3 m
Width (Operating)	2.2 m
Height (Operating)	2.9 m
Height (Transport)	2.2 m (for 20' ISO Container)
Weight (in Air)	5.2 t

RIT Capability

Item	Specification
Operating Depth	100 m
Design Depth	1000 m
Max. Seabed Slope	20°
Rated Driving Speed	1 m/s
Pitch Capability	+/- 12°
Roll Capability	+/- 12°



Anchor Tensioning Tool (ATT) Capability

Item	Specification
Rated Pretension Load	100 t
Max. Setting Torque	1 kNm
Design Hex Size	260 mm A/F

Subsea Crane

Item	Specification
Rated Lift Capability	1 t @ Max Jib
Max Crane Height	3.4 m*
Max Jib	1.5 m
Crane Boom Range	+28° /-18°
Slew Range	+/- 19°

* Measured from seafloor to fleeting mechanism

Topside Power and Control Demands

Item	Specification
Peak Hydraulic Demand	33 kW
Rated Hydraulic Flow	60 LPM
Rated Hydraulic Pressure	207 bar
Electrical Power Input	240 V, 13 A

Additional Information

Item	Specification
Oil Type	Biodegradable
Spare Hydraulic Functions	2
Manipulator Arm	Schilling Orion 7 RE
Fixed Cameras	3x LUXUS PURSD
Lights	3x Bowtech LED K-Series
Pan & Tilt Cameras	2x Spyball SSB-HD
Sonar Specification	Gemini 720i (+ pan + tilt)

