

A large, complex subsea trencher vehicle with a white and red frame, mounted on four tracks. It has multiple mechanical arms and a crane-like structure on top. The vehicle is parked on a gravel surface with other equipment in the background.

# Hi-Traq<sup>®</sup> subsea trencher

## Product overview

Hi-Traq<sup>®</sup> is the world's first subsea vehicle specifically designed to reduce project costs and product risk during the installation and burial of offshore cables. Although focused on power cable burial the vehicle is also capable of trenching a range of products including umbilicals and flexibles for the offshore Oil & Gas market.

Significant cable burial operations take place in notoriously harsh shallow water environments that have high seabed drag and lift forces generated by strong currents and wave action with corresponding arduous seabed topographies.

Traditional technologies have often struggled with such demanding conditions which has led to project delays and increased costs. The highly innovative and versatile four-track tooling platform provides unequalled steering and traction performance which facilitates trenching operations in these challenging subsea environments.

## Customer benefits

- increased operational window
- faster trenching in wider range of soils
- greater flexibility in route planning
- low mobilisation cost
- turnkey supply of equipment and vessels
- responsive 24/7 worldwide service
- attractive financing available.

## Key technical features

- operates in high currents and waves
- trenches tight radii found on cable 2nd ends
- traverses steep sandwaves and boulders
- no sudden pitching over seabed ridges
- high traction during steering and on slopes
- crane damping system<sup>®</sup> allows operation in Sea State 4 from vessels of opportunity
- eductor entry blockage negation<sup>®</sup>
- high power, low wear cutting chain
- full utilisation of available jetting power in low and high pressure configurations<sup>®</sup>
- environmentally friendly biodegradable oil.

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## Base vehicle platform

Dimensions	length 9.7m
(Incl. tooling packages)	width 8.5m
	height 6.2m
Weight in air	43Te (platform only)
Water depth	1,000m
Installed Power	1,200kW
	4x 300kW. 4.2kV 4 pole
Max. seabed slope	±20° (pitch and roll)
Max. seabed step	0.75m
Min. water depth	5.0m (beachable with shore kit)

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## Control features

- auto-heading landing orientation mode
  - traction control ensures smooth power transmission to tracks
  - auto levelling for optimum trenching orientation and grading in / out®
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## Surveillance (typical)

Sonar	obstacle avoidance (fore and aft)
Cable tracking	TSS440, TSS350, Inovatum
Heading	gyro or compass
Cameras	6 off low light, colour etc
Lamps	10 off dimmable LED's

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## Jetting package

Configuration	twin legs, multi-chamber
Jetting power	900kW, variable speed for optimal pump duty®
Weight in air	61Te (platform and tooling)
Trench depth	1.0m – 3.3m (0m with tilt)
Jet leg separation	200mm – 600mm
Maximum product	Ø450mm
Depressor MBR	3.0m (removable)

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## Chain cutting package

Chain cutter power	600kW
Jet eductor	300kW
Weight in air	63Te (platform and tooling)
Trench depth	2.3m
Trench width	0.5m
Maximum product	Ø400mm (including CPS)
Product route MBR	5.0m
Depressor MBR	3.0m (removable)
Product Lifters	fore and aft
	2x 3Te SWL
	5.0m MBR grabs
Soft ground capability	15kPa (incl. when turning)
Min. trenching radius	R15.0m
Cumber	self-cleaning jetting system

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## Control

SCADA	ethernet
Instrumentation	comprehensive with full data logging and remote diagnostics

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## LARS – crane damping system

Vessel system	100Te+ AHC Crane
Configuration	motion damped curser
	4x cylinders
Sea State	4 (Hsig = 2.0m)

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All details are typical. Please contact [uk@royalihc.com](mailto:uk@royalihc.com) for any client specific requirements.

