

A large, complex, white and red crawler vehicle with multiple levels of machinery, including a drum cutter and various hydraulic systems, is shown in a large industrial hall. Two workers in red uniforms and white hard hats are standing to the right, looking at a document.

# Underwater Mining Crawler

Originated from deep sea mining and trenching systems, the Underwater Mining Crawler is a remote-controlled vehicle, equipped with the latest underwater control and positioning equipment, that will maximise your life of mine and reduce the footprint of your mining operation.

With its powerful drum cutter, integrated cutterspecial® slurry pump and Hi-Traq® propulsion system the crawler can reach deeper and more complex ore deposits and mine any small corner of any size mining pit, from small kimberlite pipes to the open ocean.

## Benefits

- Operates in mines previously unreachable with conventional mining equipment.
- Extends life of mine of underwater deposits, both on-land and offshore.
- Improved productivity through continuous and accurate mining.
- No need for dewatering the pit, the crawler uses water as a transport system.
- Allows for steeper side walls, improving the waste/ore ratio.
- Remotely operated, keeping staff safe and away from the mining area.

## Combining crawler with launch and recovery platform: an integrated mining solution on- or offshore

The crawler requires a launch and recovery platform for it to operate properly.

In an **onshore setting** the crawler will be launched, recovered and maintained from a dedicated floating platform. Control cabin, power supply and dewatering plant can be positioned conveniently on land. Allowing personnel to stay safe while the crawler follows the mine plan.

In an **offshore setting** a vessel will serve as the integrated mining platform. Depending on the vessel this integrated system of crawler and LARS can operate up to Seastate 4.

Mined material is pumped from the crawler to the surface through a vertical flexible pipe, using water jets to create a slurry flow. The slurry can then be pumped further to a land-based dewatering plant or remain on board for further transport or processing.

## Specifications

### Crawler

Dimensions	Width: 4.9 meter Length: 10.7 meter Height: 6.25 meter
Weight in air	120 tonnes
Installed Power	2,750 kW
Max. water depth	500 meter
Max. slope	± 5°
Production	300-600 t/hr 25 MPa UCS
Number of tracks	4 individual and height adjustable tracks
Track steering modes	Crab - Wagon - Skid steering

### Drum cutter

Dimensions	Width: 3.6 meter Diameter: 1.75 meter
Cutting power	1,200 kW
Cutting depth	0.3 m - with several chisel options

### Cutterspecial® pump

Power	933 kW
Working capability	1,718 m <sup>3</sup> at 1,780 kPa

LARS	To be customised. Including floating platform, umbilical, vertical hose and dewatering facility.
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All details are typical, please contact [mining@royalihc.com](mailto:mining@royalihc.com) for any client specific requirements.

