

TECHNICAL DATA SHEET

SLUDGE BOSS

Tracked vacuum crawler for oxidation pond sludge removal

Category	Specification
Configuration	Tracked, tethered vacuum crawler; mission fit-out is site-specific
Dimensions	850 mm L 750 mm W 300 mm H
System weight	145 kg
Depth rating	300 m
Power system	Topside power via tether
Runtime	Continuous while powered
Drive system	Tracked skid-steer crawler
Control modes	Tethered control topside laptop ArduPilot-based control stack
Vacuum system	3-to-1 manifold 3 x 2 in front intakes 3 in rear male camlock outlet
Vacuum source	External topside pump selected to suit the duty
Head control	Linear actuator-controlled lift and tilt
Vision + lighting	Front camera underwater LED work lights
Materials	Aluminium and epoxy-coated steel
Deployment	Crane, davit, ramp or controlled pond-edge launch



SYSTEM HIGHLIGHTS

- Low-profile tracked platform
- Three independently positioned suction intakes
- Live video with LED lighting
- Continuous tethered operation

IMPORTANT

Final pump selection, hose lengths, suction performance and deployment method are confirmed against pond geometry, sludge characteristics, liner condition and the approved slurry discharge route.



DEPLOYMENT + SERVICE CONFIGURATION

FROM POND ASSESSMENT TO CONTROLLED SLUDGE REMOVAL.

Valmar Tank Solutions confirms the mission package for each pond. This aligns the crawler, pump, hose, access controls and slurry discharge route with the treatment process and cleaning objective.



01

Pond scope inputs

- Pond geometry, depth, profile and access
- Sludge characteristics and estimated volume
- Treatment flows, hydraulics, liner and obstructions
- Slurry discharge, dewatering and disposal route

02

Typical deployment package

- SLUDGE BOSS crawler and topside control station
- Duty-selected pump and suction hose
- Launch, retrieval and tether arrangement
- Exclusion zone and site controls

03

Typical outputs

- Targeted sludge and debris removal
- Live and recorded pond-floor video
- Coverage observations and completion summary
- Visible condition findings and recommendations

01

Assess

Confirm pond geometry, sludge and constraints

02

Prepare

Set up access, pump and discharge controls

03

Clean

Inspect first, then remove sludge systematically

04

Verify

Capture evidence and complete reporting

Deployment enquiries

valmar.co.nz

Oxidation pond work is completed under an approved site-specific wastewater management plan.