



VAC BOSS

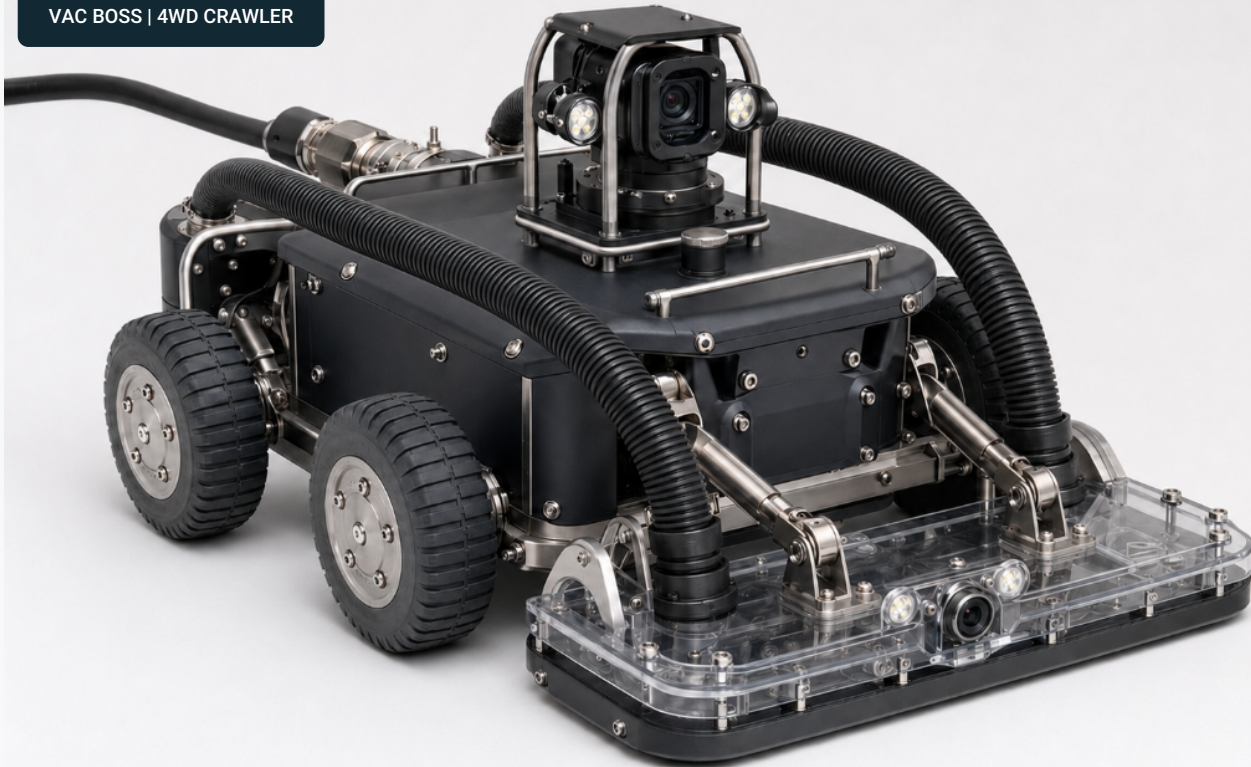
ROV RESERVOIR CLEANING SYSTEM

CLIENT DATASHEET
Inspection | Cleaning | Monitoring

Inspection and controlled sediment removal

Purpose-built for cleaning drinking-water reservoirs while the asset remains in service.

VAC BOSS | 4WD CRAWLER



ACTIVE TURBIDITY

MONITORING

100 m

STANDARD TETHER

1080p

LOW-LIGHT VIDEO

PURPOSE-BUILT FOR RESERVOIR AND TANK CLEANING

A tethered four-wheel-drive crawler designed to remove settled sediment and soft deposits from drinking-water reservoir floors. The vehicle combines a wide adjustable suction head, remote mobility, live imaging, lighting, depth indication and turbidity monitoring.

DESIGNED FOR CONTROLLED CLEANING

Wide suction coverage, live operator visibility and continuous turbidity monitoring support controlled cleaning with limited sediment disturbance.



SYSTEM AT A GLANCE

SYSTEM ELEMENT	DESCRIPTION
Primary application	Controlled removal of settled sediment and soft deposits from drinking-water reservoir floors.
Vehicle	Tethered four-wheel-drive crawler with differential steering and adjustable suction head.
Cleaning method	Vehicle-mounted suction head connected to an external pump and hose system.
Operator interface	Remote drive, steering, camera tilt, lighting and alarms.
Reservoir surfaces	Smooth concrete and lined floors.
Hygiene basis	Cleanable, non-shedding, corrosion-resistant wetted surfaces compatible with the approved disinfection SOP.

TECHNICAL SPECIFICATION

PARAMETER	SPECIFICATION
Operating depth	Up to 50 m
Tether	100 m, neutral buoyancy in freshwater
Camera	1080p at up to 30 fps; 0.01 lux; adjustable tilt
Lighting	2 x 1,500 lumen subsea lights; 5,700 K; 135° beam
Communications	Real-time Ethernet-over-tether control and video
Control platform	Raspberry Pi 4 / Navigator / BlueOS-compatible architecture
Drive	Four-wheel drive with differential steering
Suction system	External pump, hose and adjustable cleaning head (485 mm)
Water temperature	2-40°C conservative component envelope
Turbidity	Integrated real-time turbidity sensor with live topside NTU display and data logging to monitor water clarity before, during and after cleaning.

CORE OPERATING FEATURES

● **Controlled cleaning**

Wide suction head intended to collect sediment with limited disturbance and without damaging the floor or liner.

● **Live visibility**

Low-light video, adjustable camera angle and twin dimmable lights let the operator confirm coverage and cleaning progress.

● **Safe recovery**

A rated recovery point and independent recovery line form part of the design basis; the tether is not used as the primary lifting device.

● **Hygienic deployment**

The unit is cleaned, disinfected and released under a documented potable-water equipment procedure before entry.

SITE-SPECIFIC SELECTION

Provide reservoir depth, dimensions, access arrangement, floor/liner type and sediment condition so Valmar can confirm suitability and the required pump-and-hose duty.