

Your beautiful garden

Our environmentally
sustainable services

Royal Smals is a 6th generation Dutch family run company, working in close relationship with United Kingdom based companies. We focus on trustworthiness, high quality services which will enable you to realise progress on your priorities. Together with high quality service providers we aim for best-in-class services and low impact activities. We are supporting a sustainable future for Britain's Heritage.



Our view on your lakes, ponds and rivers

With specialistic dredging and dewatering techniques we offer you a smart solution in several steps.

- Restoring the natural environment. With small gently maneuvering cutter suction dredgers we desilt lakes, ponds and rivers
- Improving or restructuring riverbeds. We cleanup riverbeds, restore natural sloping and we restructure riverbeds by using our Baleen solutions
- Environment friendly removals. By pumping the silt over distances, we avoid heavy transportation causing field damage and emissions
- Improving farmland conditions. Once your local silt has been certified as ecofriendly, we add nutrient-rich silt to your local farmland; a real circular approach
- We can, together with recognised partners, provide a long-term maintenance approach, ensuring sustainable estate management.



Our proactive approach to environmentally sustainable estate management

Royal Smals offers a circular and eco-friendly solution for the maintenance of lakes, ponds, rivers in nature-rich parks, forests, private properties by the reuse of hydraulically dredged silt.

Advantages and beneficial reuse of dredged silt

- Nutrient-rich silt possibly can enrich the farmlands
- The hydraulic removal of the silt by pipeline transportation and pumps results in a low impact for environment due to a high reduction of noise, fewer road traffic and lower CO₂ output (compared to mechanical dredging)
- Water quality improves, algae population decreases
- Stimulation of biodiversity; clean, fresh, oxygen-rich water will attract more & different species, plants and animals



Under which circumstances?

- When specific lakes, ponds, rivers have to be cleaned or deepened for maintenance and restoration reasons
- As a precaution in times of heavy rainfall
- When lakes, ponds, rivers are hardly accessible from the quay/waterfront with excavators or backhoes
- When lakes, ponds, rivers are clogged with mainly organic silt
- When deepening of the watercourse to a new required level is required



8-inch cutter suction dredger desilting an English lake

The equipment brought on site

- Highly flexible, fully demountable and road transportable cutter suction dredgers
- Small dredgers for all scopes - available in various sizes from 4", 6", 8", 10" to 12"
- Low noise, low turbidity, low impact on eco-life and environment
- Additional equipment like boosters, barges and deposit materials if applicable
- 138 years of experience within a royal company to execute all projects

The Royal Smals proposition

- 01** First step in the process is to find a suitable dewatering location for the dredged up silt. This location for constructing the dewatering lagoon with ground bunds is preferably located close to the lake or watercourse, so that the drainage water can easily return to the dredged watercourse. If the dewatering area is located on a further distance, drain water pipeline including pump (booster) can be installed.
- 02** The pre-study will provide the needed background information about soil and water as part of the preparation - usually this is the responsibility of the client. Additional samples of the silt will be analyzed in our laboratory to examine the composition.
- 03** Excessive vegetation from the watercourse will be removed (carried out by a harvester) prior to the execution of works.



- 04** After transportation by road, the hydraulic cutter suction dredger with sufficient pipelines will be brought to a suitable assembly location.
- 05** Using the hydraulic cutter suction dredger, the silt is collected from the bottom of the watercourse. Then, it will be transported by pipeline to the measure work constructed lagoon, where the silt will fill up the dewatering lagoon. Pumping distances up to 9,000 meters are no problem for Smals Dreding.
- 06** Within the dewatering lagoon the silt is separated by gravity from the water and the clear water will run back to the watercourse / navigation channel.

In the above-mentioned case, we call silt applicable; if it can be spread nearby the watercourse. In case of contaminated silt (not applicable, never applicable) the silt cannot be spread over farmland and other suitable solutions will have to be devised.

If you would like to know more about our sustainable and environmentally friendly solutions, or discuss how we can help you with your specific project, please feel free to contact us, we'd be more than happy to assist.



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