

Amongst other works at the site, A&J Water supplied and installed twelve 40m diameter rotating full-bridge suction-lift scrapers at Crossness Sewage Treatment Works as part of Thames Water's London Tideway Improvements scheme.

As an alternative to traditional rotating scrapers which move sludge to the central hopper for abstraction, A&J Water Treatment offer a range of suction-lift scrapers.

These collect the sludge within the chevron-pattern scraper blades as the machine travels around the tank.

The sludge is then abstracted directly by suction tubes from these points. The level of suction at each suction tube can be discretely adjusted from the bridge deck.

**Suction-lift scrapers have many advantages, including:**

- No need for a central sludge collection hopper or sloped tank floor thereby simplifying civil construction greatly.
- The profile permits a deeper side wall depth, benefitting the settlement flow patterns within the tank, thus improving performance.
- Abstraction-at-source operation reduces sludge age within the tank and allows the outside of the sludge blanket to be removed preferentially to avoid movement of suspended solids plumes over the weirs.



**Standard features of suction-lift scrapers include:**

- Automatic greasing system for slew-ring bearing.
- Loss of motion detection, over-torque protection and loss of suction / blockage detection to protect the core scraper functions.
- All on-bridge equipment pre-wired prior to delivery.



As with all of our product ranges, suction lift scrapers can be adapted to suit the specific requirements of the site by bespoke designs or addition of optional features such as:

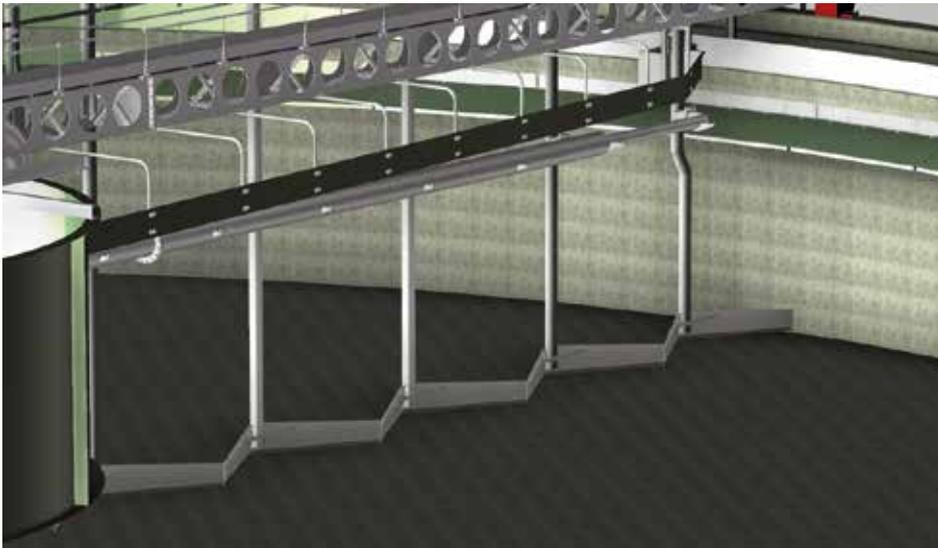
- Electrical control equipment.
- Launder cleaning systems.
- Scum control systems.
- In-tank baffles and diffusers.



Suction tubes



Suction-lift scrapers with suction down-tubes



Model of suction-lift scraper assembly

## Process Equipment Division

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