

Providing a Faster Route to Commissioning for Hemiko's Worthing Heat Network with Ice Pigging

4,252m of Large Diameter Pipework Cleaned in Just 4 Operational Days

**250mm -
50mm**

RANGE IN PIPE DIAMETERS

8

ICE PIGGING RUNS COMPLETED

“ We selected Ice Pigging mainly because of the time constraints within the programme. Conventional flushing can take up to four weeks, whereas Ice Pigging allows us to clean the network much faster. It also supports our move towards a chemical free approach from day one. Logistically it makes things much easier, and yes, I would absolutely recommend it to other district heating companies.

– Robert Hughes, Senior Construction Manager, Hemiko Ltd.

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The Mission

Prepare new pipework for commissioning quickly, and without chemicals

As part of commissioning, newly installed pipework needed to meet customer defined water quality requirements before going live. Hemiko required a cleaning method that could remove installation residues effectively across different pipe diameters while aligning with their tight commissioning schedule.

Traditional flushing methods can be time-consuming and often use hazardous chemicals which increases health and safety and environmental risks. As noted by the Hemiko team, the established flushing process takes a significant amount of time, and on a standard project they would typically allow up to four weeks to complete flushing.

When working on large diameter mains, very large pumps are required, which results in high electricity costs.

On particularly large mains, flushing flow rates can often be unachievable, or ineffective.

Moreover, Hemiko, like much of the District Energy sector, is moving towards chemical free networks, making non-chemical commissioning a key requirement from the outset.

Our Solution

A fast, flexible Ice Pigging approach supporting chemical free commissioning

Beyond its effectiveness and efficiency, Ice Pigging was selected primarily due to programme time constraints and the ability to operate without chemicals.

The team undertook the pipe cleaning in two phases, as soon as the pipework for each phase was completed. Each phase of pipework was cleaned in just 2 working days.

The first cleaning phase was completed on 2-3 October 2025 and the second phase finishing on 12-13 November 2025.

The team developed a tailored cleaning plan for each phase that considered network configuration and diameter, site access and discharge locations.

Each section was cleaned using a semi-solid ice slurry, with turbidity and conductivity monitored throughout the operations.

Cleaning continued until agreed levels were achieved before progressing to the next section. As the ice slurry moved through the pipe, it scoured internal surfaces and carried debris out of the system.



Flexibility was built into both planning and on-site operations, so any unexpected changes could be managed without disrupting the programme. No chemicals were used, and all waste was managed in line with site requirements and safety regulations.

Scope of Work and Performance

Phase	Dates	Pipework cleaned	No. of runs	Diameter range	Key performance outcome
1	2-3 Oct 2025	1,338m Sections from 52m to 490m (DN50-DN250)	5	DN50-DN250	Significant turbidity reduction across most sections, supporting commissioning preparation
2	12-13 Nov 2025	2,914m Sections from 714m to 1100m (DN100-DN200)	3	DN100-DN200	Consistent water quality improvement across longer sections, meeting required levels for commissioning

The Results

Getting the network ready for operation, delivering a high quality clean with minimal duration

Delivered in two phases, the Ice Pigging programme improved water quality across both shorter and longer sections of the network, helping move the system towards commissioning without holding up the wider programme.

Across both phases, a total of 4,252m of pipework was cleaned, covering diameters from DN250 to DN50.

The programme was completed safely, with zero incidents and without the use of chemicals.

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As noted by the team, many organisations across a wide range of industries are already shifting towards Ice Pigging for cleaning larger and longer mains.

About The Client

Hemiko is a UK-based company that designs, builds, and manages low-carbon district heat networks for towns and cities. They connect local communities and businesses by utilising locally wasted heat to enable rapid decarbonisation at scale and accelerating progress towards a post-carbon future.

The Worthing Heat Network is a pioneering low-carbon energy project that provides local heat, cleaner air, and a greener, cheaper future for Worthing—a town and borough in West Sussex, England, with a population of 113,094 .

About SUEZ

Faced with growing environmental challenges, SUEZ has been delivering essential services that protect and improve our quality of life for more than 160 years. SUEZ provides its customers with innovative and resilient solutions for water and waste services. With 40,000 employees across 40 countries, the Group works with customers to create value over the full lifecycle of their assets and services, and to drive their low carbon transition. In 2024, SUEZ provided drinking water for 68 million people worldwide and sanitation services for more than 44 million people. The Group generated 8 TWh of energy from waste and wastewater. In 2024, SUEZ generated revenues of 9.2 billion euros.

