



SPIRAC[®]
Conveying Technology

Case Study

No. CS-MW-UK-6.01

Application:
STP Screenings transport, washing, dewatering and compaction

The Site:

The Camberley (UK) STP, operated by Thames Water, handles sewage and storm water flow for a population equivalent of 250,000 with a normal dry weather design flow of 980 lps.

The problem:

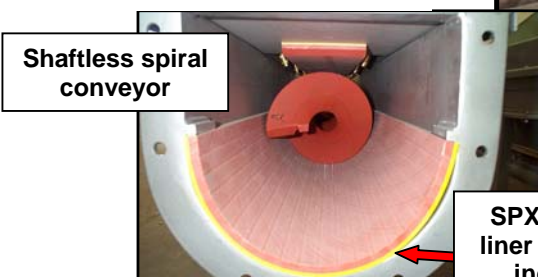
The existing system consisted of launder fed macerators handling screenings from four screens. A combination of high stormwater flows, macerator plugging and breakdowns due to stones, metal or other hard objects created regular overflow conditions resulting in a fetid mess. Additionally, the backup of screenings would block and trip the screens, further compounding the problem.



The SPIRAC solution

(Installed June 2004):

1. Launderers were replaced with SPIRAC shaftless screw conveyors, able to handle up to 8m³/hr of screenings without requirement for wash water. The conveyors include drain decks for separation of excess water flows.



SPX long life liner with wear indicator



Contact:

For additional information or contact details for this project or your local SPIRAC office, check our Website at www.spirac.com



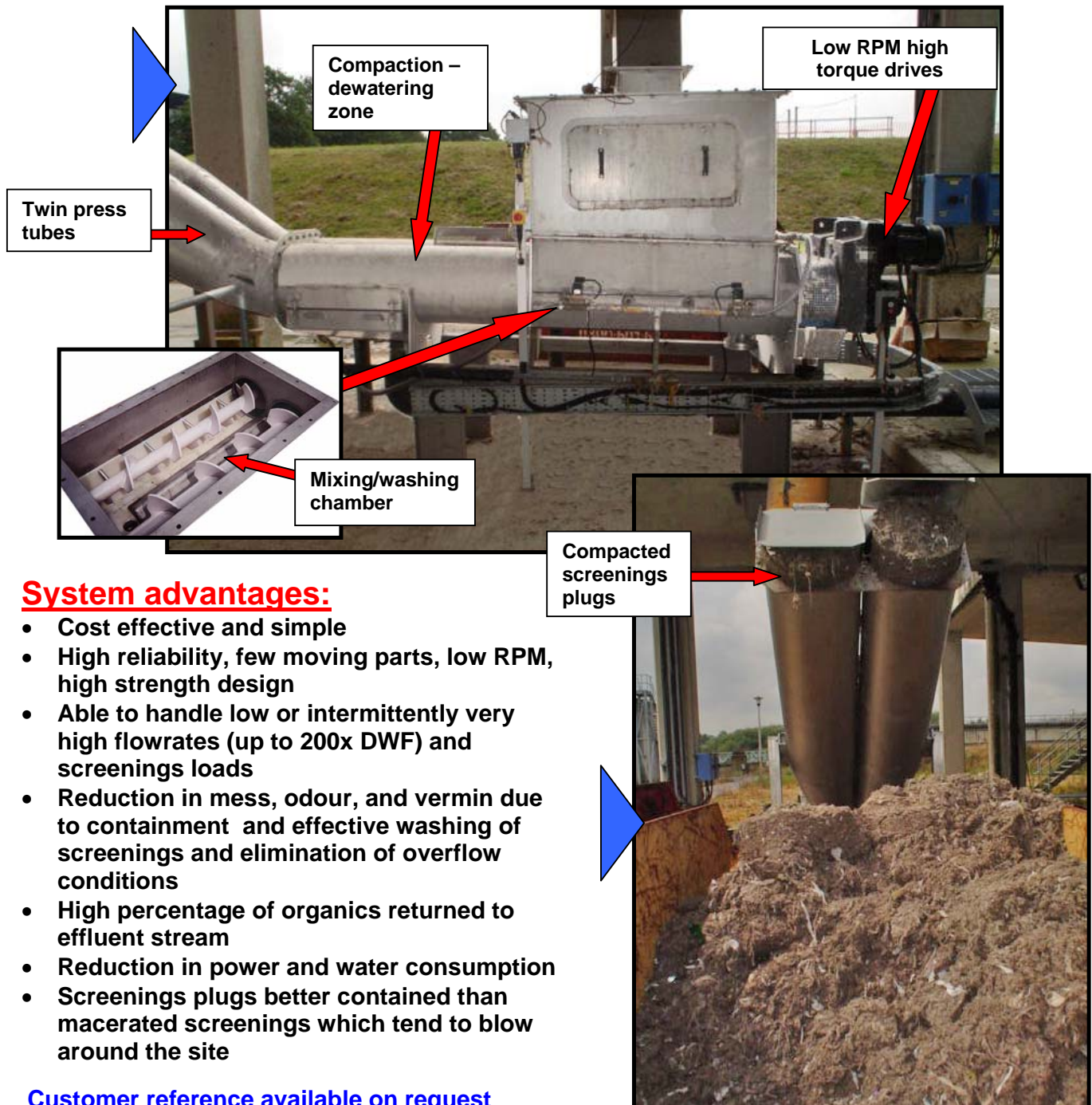
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The SPIRAC solution (cont'd):

2. Screenings are now transported to a SPIRAC VRW Megawasher with 10m³/hr throughput capacity. Screenings are washed and compacted with a 70% reduction in weight. Organics are returned to the effluent channel. Stones and grit are easily handled by the Megawasher.



System advantages:

- Cost effective and simple
- High reliability, few moving parts, low RPM, high strength design
- Able to handle low or intermittently very high flowrates (up to 200x DWF) and screenings loads
- Reduction in mess, odour, and vermin due to containment and effective washing of screenings and elimination of overflow conditions
- High percentage of organics returned to effluent stream
- Reduction in power and water consumption
- Screenings plugs better contained than macerated screenings which tend to blow around the site

Customer reference available on request

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