

UNIVERSITY CITY, Sharjah, UAE

Client: Sharjah Municipality

Country: United Arab Emirates

Length of Pipe: 44 km

No. of Valves: 410

Volume of Flow: 4 stations each 50 litres/sec

Specialist Feature: Versatile system that was designed, built and commissioned in 6 months



The Sheikh perceived the need for a University in the Emirates and he personally took on the task of coordinating the project. However this created a tall order with a time scale such that when Iseki were invited to offer a solution only 20 weeks remained before the planned opening. This fast track approach rendered the use of a vacuum sewerage system a must. Iseki Engineers designed the scheme on site ahead of construction. The use of local suppliers in Sharjah enabled the HDPE pipe to be manufactured to the required quality and delivered to site, allowing pipe laying to proceed immediately. Local companies were also used to manufacture the large vacuum vessels, whilst the balance of equipment, such as pumps, was shipped out from Europe. A tall order, delivered on time with the versatility of Iseki personnel and technology.



University of Sharjah



Avenue

Vacuum Pipework

Vacuum sewers in PN10 polyethylene sizes from Ø90mm - Ø200mm with electro-fusion joints

Vacuum Station Equipment

Four stations each operating with three rotary vane vacuum pumps each rated at 400m³/hr (Busch) together with two dry well discharge pumps each rated at 50 l/s (full duty)

Vacuum collection vessel 25m³ fully protected for Middle East conditions and tested to Lloyds certification. Motor control cabinet fully automatic with a PLC. All pumps start in rotation and all conditions are monitored with a data logging system.

Bespoke vacuum interface valve monitoring system which monitors the open/close mode of each valve at all locations around the project.

Summary

This sewerage system could only have been designed and built within the allocated time span using 'The Vacuum Way' An achievement we are proud to be apart of.

Applications for Iseki Redivac's Technology

- Rural community sewerage schemes
- Industrial developments
- Supply bases
- Housing developments / compounds
- Hazardous waste collection
- Airports & military installations
- Beach developments
- Remote villages

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Vacuum Vessel



Electrical Control Panel situated in the Vacuum Station



Pipe laying in progress