

FOUCHERES, FRANCE

Client: La Commune Foucheres
Country: France
Length of Pipe: 5500 m
No. of Valves: 76
Volume of Flow: 5 litres / second
Specialist Feature: River and rail crossings



The village of Foucheres is situated approximately 150km South East of Paris near the town of Troyes. The village was served by septic tanks which overflowed at times when the water table was high. Collection of sewage using a conventional gravity system was difficult due to the ground conditions. The River Seine and the local railway line also had to be negotiated several times, which further added to the difficulty of installing a sewerage system. Using vacuum technology these problems were overcome by shallow digging and fixing small diameter pipes to the bridge.



As illustrated on the above photograph the vacuum pipe was fixed to the bridge decking. To achieve the required pipe invert levels over the bridge a lift of 1 metre was installed over a distance of 20m leading up to the bridge. The vacuum sewer pipe then falls towards the vacuum station which can be seen behind the trees on the left.

FOUCHERES

Vacuum Pipework

Vacuum sewers in polyethylene sized from Ø90mm to 160mm.

Vacuum Station Equipment

Two rotary vane air cooled vacuum pumps with a capacity of 160m³/hr.

Two dry well discharge pumps rated at 5l/s, duty and standby.

Vacuum vessel has a 4m³ volume and is epoxy coated inside and out and tested to Lloyds Certification.

The motor control cabinet is fully automatic with a programmable PLC. All pumps start in rotation.

The valve monitoring system which monitors the open/closed mode of each interface valve located around the village, can be individually observed from the vacuum station.

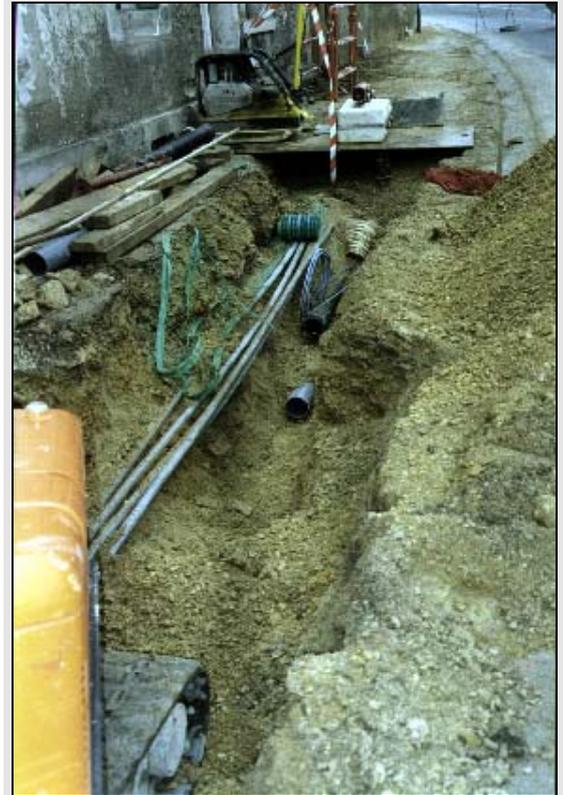
Exhaust gases are filtered by passing them through a Biological Filtration Unit situated adjacent to the vacuum station.

Summary

The Vacuum Way was able to offer substantial savings in cost together with a rapid and manageable installation due to the shallow, narrow trenches inherent with this technology.

Applications for Iseki Redivac's technology

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



Vacuum sewer being installed along side other services



Valve chamber installed



Vacuum vessel and associated equipment

Cost effective solutions to many difficult drainage problems