



# **Applications**

- Sewerage of ribbon developments
- Recreation areas /summer houses
- Marinas
- House boat
- Industrial / Government
- Canal Estates
- Villages /housing development
- Islands



### **Industrial/Government**

World Wide

- Hyundai Shipyards South Korea
- Samsung Factory South Korea
- Canon/Sharp/Nikon Japan
- Valencia Port Spain
- Zayed University Abu Dhabi
- McLaren F1 UK
- King Abdulaziz Int. Airport SA



## **Housing development / Holiday houses**

- Seeq/Shiraij Oman
- Vieksnai Lithuania
- Graha Natura Indonesia
- Dragomiresti Romania
- Barwa Al Khor Qatar
- Kasane/Kazangula Botswana



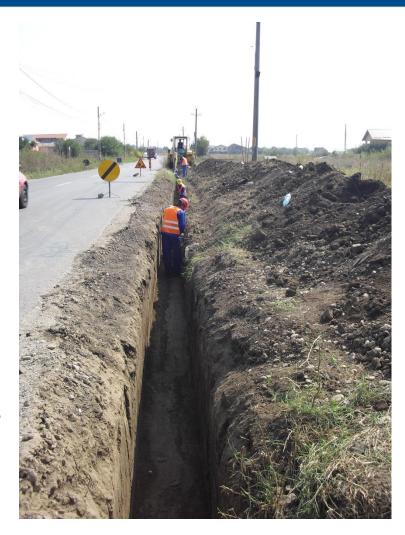
### **Islands**

- Maldives (local islands)
- Amwaj Island Bahrain
- Al Marjan Island UAE



# Benefits of the QUA-VAC Vacuum Sewage System

- Low investment costs
- Quick excavation
- Minimal maintenance
- Low energy consumption
- Small diameters, 90 250 mm
- Shallow and no deep trenching
- EN1091 certified by Lloyd's register
- Flexibility of piping
- Flexibility for contractor
- Free choice for material chamber by contractor
- Environmental system, due to negative pressure
- Aeration of sewage
- No manholes/inspection points
- Buffer volume in vacuum valve chamber



#### **Gravity**



#### **Complex**

Numerous lift stations, excessive excavation and trenching costs



#### **Simplicity**

Non continuous slope





#### **Dewatering**

Excavating in areas of high water table expensive, dewatering, trench stabilization.



#### **No Dewatering**

Numerous lift stations, excessive excavation and trenching costs



#### **Road obstructions**

Wide and deep trenches make road impossible for traffic for long period of time. Damage to trees.



#### **NO Road obstructions**

Small diameters, just below the frost level. Minimizing construction time and environmental disturbances.



#### **Pollution**

Exfiltration can pollute the surrounding area, risk public health



#### **NO Pollution**

Never exfiltration possible, environmentally friendly, no risk public health



#### Non Flexible

Unforeseen obstructions usually result in expensive field changes and line re routing



#### **Flexible**

Vertical lift capability allows unforeseen obstructions resulting in minimum delay and extra costs.



#### **High investment**

Gravity pipes are bigger in diameter, costly due to size and high trenching/civil costs



#### **Low investment**

Small diameters and speedy trenching and laying of the pipes

# **QUA-VAC Valves**



## QUA-VAC Interface unit

ONLY Equipment in the market which is fully submersible



**By-pass** 

Connection

**Maintenance** 

**No Electricity** 

**EN1091** certified

Buffer volume in vacuum chamber

Contractor local supply of chamber-Concrete/PE/PP standard manholes

# QUA-VAC Interface unit

**France** 

UK

**Bahrain** 

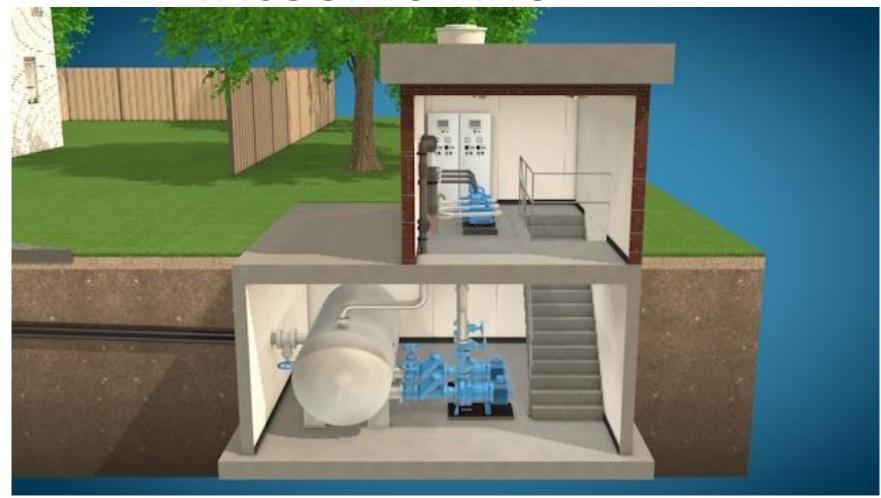
**Maldives** 

Malaysia

**Oman** 



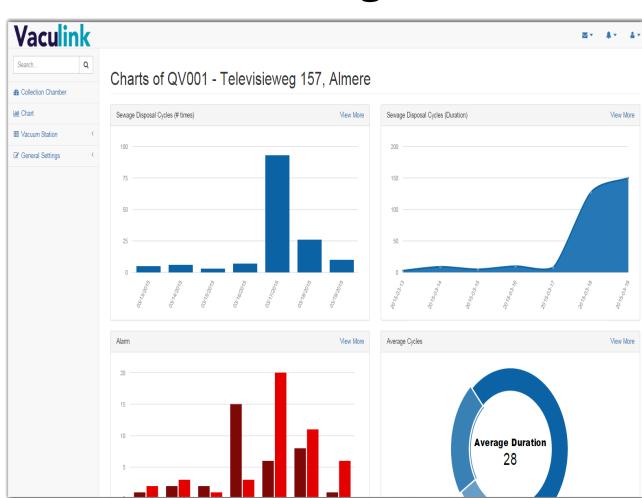
## **VACUUM STATION**



Vacuum pump station

## VACULINK monitoring

- Collection chamber monitoring
- High level alarm
- Vacuum valve alarm
- Vacuum station monitoring
- SMS/Email notification
- Wireless or cable system
- Client webportal
- Charts
- Remote control/settings
- Accessible anywhere
- Tablet/smartphone
- Android app



www.vaculink.com

Dubai

Abu Dhabi

Kingdom of Bahrain

## Qua-vac Middle East

Qua-vac has delivered vacuum sewage systems throughout Middle East and to countries and places such as: Sultanate of Oman, Dubai, Abu Dhabi, Ras al-Khaimah, Sharjah, Kingdom of Bahrain.



Romania

Lithuania

Poland

United Kingdom

## Qua-vac Europe

Qua-vac has delivered vacuum sewage systems throughout Europe to countries and places such as: The Netherlands, United Kingdom, France, Belgium, Germany, Sweden, Denmark, Austria, Switzerland, Hungary, Italy, Greece, Spain, Poland, Lithuania, Romania, Ukraine.



Spain

The Netherlands

Austria

France

### Qua-vac Asia

