



# Case Study

## Turnkey WFI and Highly Purified Water System



### Shield Medicare

#### Location

Baglan Facility Swansea

#### Project

New validated USP/EP WFI and Highly purified water system

#### Order placement date

July 2006

#### Project Concept

Shield Medicare announced their intention to build a new facility in Baglan Swansea resulting from the amalgamation of products from two different sites. They identified that product water was required to comply with the USP&EP specifications for WFI. In addition, they requested that the feed to the WFI still was also capable of providing a future possible separate supply of highly purified water (EP compliant).

At Baglan, the Puretech Oasys system produces highly purified water on-demand and then maintains the quality and the integrity of the water through internal recirculation. The Oasys provides the feedwater to the vapour compression still. A hot water sanitisable WFI storage and distribution loop delivers the product water to the various points-of-use on demand.

#### Scope of Supply - Plant

1. Puretech Oasys generation plant (sized to provide 1,000 l/hr 24 hrs/day) complete with pretreatment skid, control panel, on-line chlorine monitoring and control devices. The Oasys utilises RO-CDI-UF to provide Highly Purified Water (endotoxin limit of <0.25eu/ml).

2. Vapour compression still capable of delivering 800 litres/hr. The distribution system comprises of a 10m<sup>3</sup> stainless steel WFI holding tank with a hot water sanitisable orbitally welded distribution loop with 5 x zero-dead-leg valves at the various points-of-use. Central PLC control system utilising the Siemens PLC within the Oasys. Ethernet capability if requested in the future.

#### Scope of services

Design, supply, delivery, installation, testing, commissioning, validation and training.

#### Testing

Client witnessed FAT, SAT at Redhill works

#### Validation

Generation and execution of IQ/OQ documentation.

#### Project programme

20 weeks

#### Client Reference

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