

## REFERENCE LIST

SEMICONDUCTOR  
SOLAR  
PHARMA  
POWER GENERATION  
FOOD & BEVERAGE  
PULP AND PAPER  
CHEMICAL  
OIL AND GAS  
MINING  
AEROSPACE AND TRANSPORT



# Ophtecs (Euro) Ltd

## Pharmaceutical Water Treatment



Ophtecs Corporation is the leading manufacturer of contact lens cleaning products in Japan. In 2002, Ophtecs established a subsidiary, Ophtecs (Euro) Ltd., with the intention of expanding its business into Europe and the USA. The newly constructed plant in Ireland currently manufactures Contact Lens Care Cleaning solutions and general liquid products for ophthalmic use. The main ingredient used in the manufacture of these products is Purified Water.

H+E have designed, manufactured, installed and validated a range of systems from Purified Water (PW) and Water for Injection (WFI) Systems, to Product Preparation and Filling Systems. These systems were fully validated and satisfied the specified FDA, USP and European Pharmacopoeia guidelines.



**Purified Water Room**

The water treatment plant and filling equipment supplied includes the following main elements:

### **Purified Water Treatment**

- Duplex water Softener
- pH adjustment system
- Primary twin pass RO system
- Secondary RO system
- UV Sterilisation systems
- Mixed bed polishers
- Pure Steam Generator
- Water softener for cooling tower feed



**Pure Steam Generator**

## Medical Water System

Mixed Bed Polishers  
PW Storage  
Water Heater

High Purity UF System  
Automatic multi-effect still/WFi storage



**Product Filling Room**

### Product manufacture and filling systems

Four product mixing systems for cleaning fluids  
Two product mixing systems for medical fluids  
Product Filtration & Filling Stations

CIP and SIP Systems

Systems incorporate fully automatic Clean in Place (CIP) and Sterilise in Place (SIP) systems.

All stages of production are automated, with PLC control and Man Machine Interface (MMI). Event loggers record all historical system events during routine product make up, filling and cleaning operations.

After completion of this plant, H+E provided technical and engineering support, together with routine service & maintenance. Our experience is that ultimately such relationships are to the benefit of both parties: Our clients ensure their plants continue to operate at peak efficiency and, with H+E's policy of continuous development,

they also benefit from periodic reductions in operating costs. For H+E the benefits are to ensure that the plants we build continue to operate properly, that our customers are content, and that our reputation as a supplier of high quality systems is maintained.

In addition to the custom plants built for many companies, H+E manufactures a range of standard water treatment products for both pharmaceutical and a wide range of other applications



**Product Mixing Tanks**

H+E ranks among the world's leading suppliers in the fields of water & wastewater treatment, and energy efficiency. Based on its global presence, the **H+E GROUP** has completed projects in over 50 countries.



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