



**Nutech Ltd.**

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**Packaged Plant Rooms**

# Objectives

- **To provide a modern, efficient boiler package which complies with current Legionella regulations**



# Considerations

- **The existing boiler-house was below ground, contained asbestos and was inefficient. The old plant could not be upgraded to comply with regulations to prevent Legionella in the domestic hot water supply.**
- **Removing the old plant would necessitate providing temporary plant to provide both heating & hot water services.**



## **By placing a packaged plant room on site, the following objectives could be met**

- **Efficient use of gas**
- **Eradication of Legionella Bacteria**
- **Easy change over from “old to new” plant in a day**
- **Easy uplift of plant room should the site be re-developed**
- **The easy re-use of the plant room for permanent or temporary services.**



# Packaged plant room features

- **Dedicated condensing heating boilers**
- **State of the art hot water storage heaters**
- **Innovative solar heating boost to hot water supply**
- **Latest electronic control of ancillary equipment such as pumps**





# Heating boilers



- **Three wall hung, fully condensing gas boilers are fitted. Controlled to operate on a cascade system maximising efficiency by supplying a “low loss header” pipework arrangement which only sends out the required volumes of water at optimum temperatures to satisfy the heating demands of the building. A boiler failure will not reduce the heating capacity ensuring continuity of service.**

# Hot water storage heaters



- A pair of stand alone gas fired hot water storage units provide enough hot water for all the demands of the building. Water is stored at 65 Celcius to ensure any legionella bacteria are killed, the hot water is circulated throughout the building at 60 celcius preventing any bacteria surviving in the distribution pipework. Should one of these units fail, sufficient hot water is generated to meet the demand.

# Solar hot water heating.

- **An up to the minute commercial Solar heating system collects energy from collectors on the plant room roof and transfers it to a storage vessel featuring a novel “solid paraffin” energy converter which gathers energy with a “change of state” process enabling much greater energy storage with prolonged dissipation back into the system. The cold water supply to the Gas fired water heaters is pre-heated to save gas.**





# Control

- **All this plant is controlled by a state of the art control package monitoring and optimising water temperature, pump speeds, adding and shedding equipment on line and providing constant monitoring with alarms**



# Gallery

