



PROJECT

## DDD Pharmaceuticals

CLIENT

DDD Pharmaceuticals

MARKET / TIME

UK /

APPLICATION

Others

RANGE

VRF

**Background:** Controlled temperature and monitoring is a necessity for any facility dealing with pharmaceutical storage and manufacturing processes. DDD Pharmaceuticals' new site in Watford not only required controlled cooling for the warehouse, but also heating and cooling facilities for the offices at the plant.

**Project Challenge:** DDD Pharmaceuticals provides a complete service for manufacturing pharmaceutical products for clients in the health and beauty sectors. As with most pharmaceutical products, to maintain the safety, performance and efficiency of a product, the environment in which the item is manufactured, stored and distributed must be carefully maintained. With around 15-tonnes of product on-site, a reliable solution was required.

**Solution:** For the manufacturing and storage phase at DDD, Panasonic's new ECOi VRF range was specified as the ideal solution for the plant. Seven 16kW cooling only cassettes were installed in the pharmaceutical facility, with a further five to heat and cool in the offices, all piped from the same outdoor units.

**Building Energy analysis:** To meet the requests of DDD, TF Solutions opted to use Panasonic's ECOi outdoor units with the indoor cassettes. The units are able to achieve an incredible COP performance of up to 4.04 when cooling and 4.56 whilst heating – giving excellent savings. The installation also makes the site compliant of the R22 regulations.

**3rd Party Comments:** "The requirement at DDD, although not unique, was somewhat complex" explains John Wakefield, designer of the HVAC installation at DDD. "Whilst constant and recordable conditions were required in the pharmaceutical storage and manufacturing facilities, we also needed a system that could provide adjustable heating and cooling to other onsite amenities. The Panasonic solution allowed for us to combine both these needs into one system, allowing for simultaneous operations whilst only requiring one set of outdoor units."



## List of Products

- Panasonic's ECOi VRF

**Panasonic Việt Nam**

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The applicable products and solutions may differ in markets.  
Please contact us for the further information.