

> HONG KONG

## Airport P568

Saddle PE Air Valve Outlets



'click' on a product image to learn more



## Kin Kay Engineering Co. DN450 (500 OD) PE100 RC twin sewer rising mains at Hong Kong International Airports new Midfield Concourse.

July 2017

The Midfield Concourse is located to the west of Terminal 1, between the two existing runways at Hong Kong International Airport. The project is a five-level concourse with a total floor area of 105,000Sqm combining 20 aircraft parking stands including two A380 stands.

Wastewater, collected from the Midfield Concourse, is pumped to chambers for connection to the main sewers. Mill-Pro's M90ES PE100 RC (Resistance to Crack) CCTV pipe, fittings and Friatec electrofusion couplers were used to provide a 100 year design life, without the need for maintenance.

Cyclic fatigue\* (on/off pump cycles) and surge (water hammer) must be considered in any design using plastic or GRP pressure pipelines. With PE100 RC compounds the pipe does not need to be de-rated over the full 100 year design life according to the UK standards IGN WIS 4-37-02 due to PE100 RC's exceptional crack resistance properties (\*  $\leq 1200$  cycles per day, \*\* Surge  $< 2x$  PN).

*For more information on PE100 RC compounds click [here](#).*

Installation of sewer air valve outlets is always challenging as the highest actual points in the pipeline where air accumulates may not be at the design high points, so the actual location is often not identified until after the pipe's installation. This can be solved by excavating and installing the air valves at the highest actual points in the installed lines, using top loading electrofusion saddles, as seen in the images below. These are more cost efficient than using air valve tees and can be retro fitted where required, even to existing PE pipelines.

*For more information on Friatec top loading electrofusion saddles click [here](#).*

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