

PROJECT:

Parcelforce distribution centres

LOCATION:

Nationwide, UK

MAIN CONTRACTOR:

Wates Construction

CONSULTING ENGINEER:

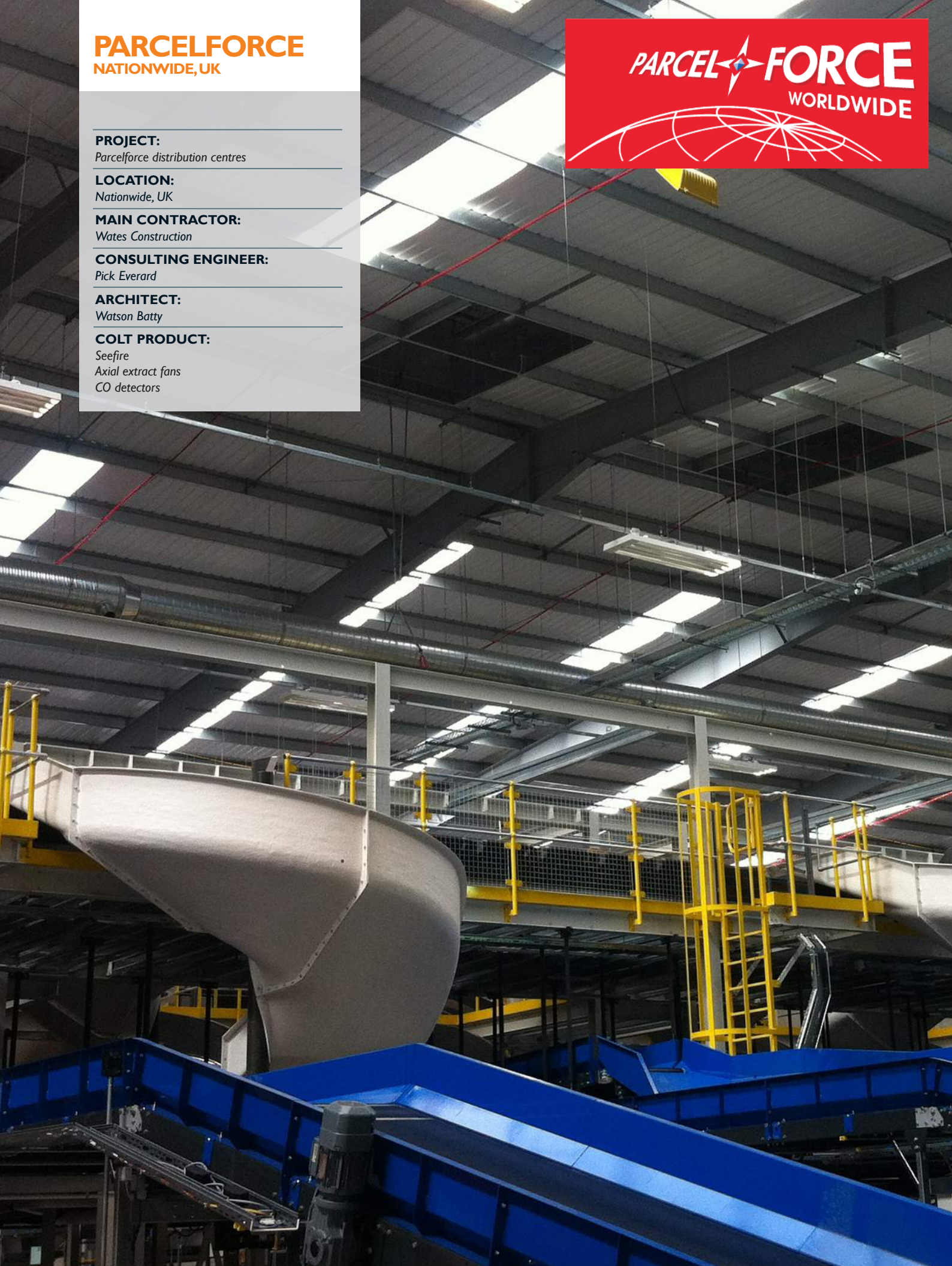
Pick Everard

ARCHITECT:

Watson Batty

COLT PRODUCT:

Seefire
Axial extract fans
CO detectors



PRODUCT IN ACTION | CASE HISTORY

The Royal Mail's Parcelforce sorting and distribution centres required a fume ventilation system to control exhaust emissions from the delivery vans. These centres are converted warehouses and can contain up to 150 vans at any one time, all entering and exiting the building at similar times.

The standard prescriptive solutions in Approved Document F for exhaust emissions focus on the air change rate, which in the case of Parcelforce's sorting centres would have meant 6 air changes per hour. However this rate would not take into account the variations in the levels of diesel exhaust in the air at different times. There would be peaks at the times vans drive in or out, but levels would go down when they were stationary while loading or unloading the parcels, or when the building was empty between rounds of deliveries and collections.



Seefire natural ventilator at Liverpool Parcelforce

The Colt solution was to develop a system which achieves cross flow ventilation via natural inlet air and mechanical extract with a combination of axial fans and natural ventilators. These are triggered by CO detectors when emissions levels reach a pre-determined level. This means that mechanical extraction fans only operate when needed, significantly cutting operating costs.

This outside-of-the-box approach is extremely cost effective and is significantly cheaper than the prescriptive solutions. However, this solution was only possible due to Colt's early involvement with the customer, which enabled us to support the M&E consultant from initial design through to approval with building control. Royal Mail were able to tell us when and how the van movements occurred with specifics in terms of roadways and bay layouts, which allowed us to tailor the design.

This solution was repeated over several buildings, all completed simultaneously, allowing Royal Mail to achieve continuity over design and systems installed.



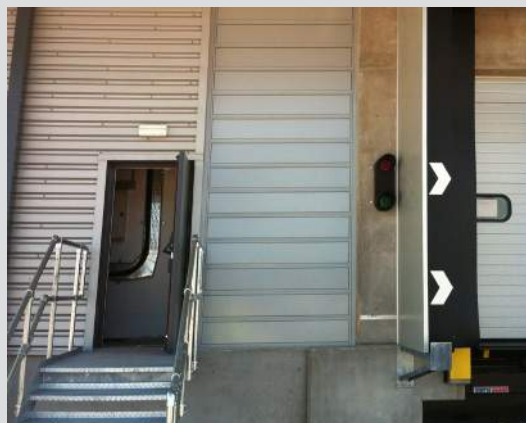
Liberator powered ventilator at Liverpool Parcelforce



Seefire natural ventilator at Liverpool Parcelforce



Mechanical air inlet at Bodmin Parcelforce



Coltlite louvred ventilator at Chorley Parcelforce



Weatherlite ventilated upstand at Chorley Parcelforce