Brüel Systems A/S is one of Europe’s largest manufacturers of fully automated crate washing and handling equipment for the food and box pool industries worldwide. The company is based in Denmark. More information: www.bruelsystems.com

Brüel systems A/S

Tray washer - case study
Leading food retailer chooses advanced washing technology

The Customer
A vast distribution complex in Peterborough, UK operated by Christian Salvesen for Tesco, the world’s 4th largest food retailer, is not just a storage and logistics centre. It also houses a recycling facility and the UK’s most advanced 10,000m² automated tray washing and handling facility.

The Challenge
The facility is required to wash and handle 9600 trays per hour and to operate for 20 hours every day, for seven days a week. The trays need to be cleaned to the highest standard for immediate re-use in a logistics operation which serves 200 Tesco supermarkets within a 120 km radius of the facility.

The system is capable of recognising and handling 13 different tray types, both full-size and half-size within the Paxton Maxi-nest range. In addition to energy and environmental considerations, the project brief also reflects Christian Salvesen’s highest priority for operational safety.

The Solution
Brüel Systems took responsibility for the design, build, installation and commissioning of the tray washing and handling plant.

The system utilises two, twin lane, tunnel washers. Each washer is over 32 metres long, excluding in-feed and out-feed conveyors and has a capacity of 2,400trays/hr/lane. Each washer incorporates pre-rinse, dissolve/wash, high pressure label removal, heated re-circulated after-rinse, final fresh water rinse and a turbomatic drying section comprising 20 air knife units. Each of the 4 out-feed lines is fully automated and includes a bale arm opener and tray stacker on each line which merge to a palletizing and strapping system with a capacity of 120 pallets/hr.

The plant incorporates full MIS/Scada monitoring and performance logging including HACCP requirements.

Dr Phil Shepherd, Technical Services Director at Christian Salvesen said, “We were impressed by the expertise we found at brüel, not least with the mechanical plant. This was of great importance to us as we were aiming to build the new distribution centre with the highest possible degree of mechanisation. Following an in-depth evaluation, we chose the supplier who was best fitted to minimise our total washing costs over the total lifetime of the plant. We also placed great emphasis on the brüel technical superiority in front line areas of water filtration systems, low washing temperatures, high productivity and extremely good washing performance”

Productivity combined with state-of-art washing & handling

Brüel Systems
9600 trays per hour - 13 different types
Complete brüel tray washing & handling

9600 trays per hour - 13 different types
High capacity - 20 hours a day, 7 days a week
Washing facility serving 200 supermarkets