

Made-to-measure extraction for recycling scheme

By Steve Hart.

There are plenty of options when it comes to selecting an off-the-shelf dust extraction system. But every now and then a factory manager needs a custom designed solution.

There can be various reasons for this, but in one case at Winstone Wallboards – a Fletcher Building-owned company that manufactures Gib plasterboard in Christchurch – factory space was at a premium for a recycling scheme it wanted to introduce. A made-to-measure system was the only way to go.

Gary Wake, project engineer at Winstone Wallboards, says about half the dust extraction

“We save money in raw materials and landfill costs and the project fitted well with the sustainability goals of the company,” says Gary.

Dustex delivered the equipment to Winstone Wallboards early last year and it was up and running in August.

“We had lots of work on, quite busy, so it wasn’t installed and connected as quickly as expected,” says Gary.

Dustex’s Ken Skinner says the recycling system was designed in collaboration with Winstone Wallboards.

“We were involved right from the concept stage,” says Ken.

“...the project fitted well with the sustainability goals of the Company.”

systems used at the factory are standard units, but because of the age of the building, coupled with numerous add-ons over the years, about half of the extraction systems have been custom built.

When it came to introducing some extra recycling capacity last year, the firm turned to Auckland-based Dustex – a firm owned and managed by dust extraction engineer Ken Skinner.

Gary says: “We prefer to use off-the-shelf gear when we can, purely for the simplicity of it, and the ability to get parts and back-up. But we are a 50-year-old plant, so we often find it necessary to fit equipment into odd spaces.”

The extraction system designed by Dustex is helping Winstone Wallboards reduce the amount of waste it sends to the landfill.

The ends that are trimmed off the plasterboard are now captured in a hopper and the Dustex system captures the dust – it is all put back into the factory’s raw materials section where it is used again.

“We put quite a lot of input into the sizing of the plant... we had to determine the capacity, air flows and various things to make it all work.

“We designed the dust collector part of the plasterboard off-cut reclamation system – but it is an integral part of the whole recycling system.

“Our machinery had to be kept inside as the material was going straight back into the raw material system. With careful placing of the equipment we could rely on gravity to do some of the work, and that not only saved space but the requirement for extra material handling equipment.”

Manufacture of the dust collector took just five weeks once the firm got the go-ahead.

Although Dustex has only been under Ken’s ownership for four years, he and his team have been in the industry for more than 20 years.

“So while we didn’t learn any lessons from this latest Winstone Wallboard’s contract, we were able to bring our collective experience to do a nice clean and efficient job,” says Ken.

