

WineWorks.

Dexion and WineWorks keep the wine industry flowing.

It was a nice problem for a company to have; business was too good.

WineWorks is New Zealand's largest contract wine-bottler, and in late 2007 global and domestic demand for New Zealand wines was booming.

Exports were growing at a compound rate of 25% each year.

In the valleys of Marlborough, famous for its Sauvignon Blanc, the amount of land under grape had tripled in size in five years to nearly 16,000 hectares.

WineWorks' plant in Blenheim, the hub of the Marlborough wine-growing district, had for many years bottled, stored and distributed wine for an eclectic range of local winemakers, from single vineyards to multinationals.

And now it was filled to the brim.

"For years we had been stacking the (pallets) in the aisles, piling it high and then having to spend hours digging out that elusive last pallet," said WineWorks managing director, Tim Nowell-Usticke.

Dexion was contracted to help WineWorks and their clients find a way forward.

A Greenfield solution wasn't possible. WineWorks was committed to the site (many clients had built storage tanks nearby and piped directly into the plant) while it was necessary to keep the plant operational during construction.

Grapes, it seems, don't stop growing because there's a plant to build.

There also had to be great flexibility in the new system.

"We do everything, from sending a single case to a local restaurant to filling a container and dispatching it to the US," explains Anthony Barnes, Warehouse and Distribution Manager.

"It's a very volatile business. We never know exactly how busy we'll be tomorrow. If an exchange rate moves the right way, or if a celebrity chef on European TV says how much he likes one of our client's wines, we can very easily find ourselves suddenly pulling double shifts."

Dexion designed and built 109 bays of racking in four separate sections that would add 9,800 pallets (nearly 2 million bottles) of high-density storage to the plant's capacity. (A second stage of expansion, adding a further 10,700 pallets of storage, has been planned but not yet built.)

Wine is difficult to block-stack; glass is too fragile while bottles and cartons come in different shapes and sizes. Yet the new racking system allowed stock to be stored 6 pallets high and 14 or 16 pallets deep.



Simultaneously, Dexion devised a revolutionary satellite system, featuring four robotic shuttles that travelled out along the rails of the racks, beneath the pallets, to collect the required order and bring it back to the fork truck.

A global search was conducted for the right shuttle (or automated compactor); Swedish manufacturer, Texo Applications, was chosen.

“Texo had developed next-generation technology,’ explains John Telfer, Project Manager, Dexion New Zealand. “They were the best in breed. No hydraulics, few moving parts and easily removable batteries that could be recharged without interrupting a shift.”

“The compactor units could also be pre-programmed or operated manually by the fork-truck operator.”

Dexion provided a software solution that allowed wineries to find out online, in real time, exactly how much stock they had stored, whether it was ready to be loaded, or if it was in transit.

Building began in September 2008. The new 8,500 sqm warehouse became fully operational in late April, giving an enhanced total capacity of over 30,000 pallets and plenty of room for growth in years to come.

The Dexion solution has also more than doubled floor-space efficiency to nearly 2.5 pallets per square metre. “The satellite system also helps us use our labour far more efficiently,” says Anthony Barnes.

In tough economic times, the wine industry supports more than 16,500 jobs and generates more than \$3.5 billion of revenue to the New Zealand economy.

And as Marlborough’s brilliantly inventive viticulturists continue to shake up the wine world from their distant corner, WineWorks and Dexion are pleased to have done their bit to help.

