

Case Study
STIHL, Melbourne



STIHL's State of the Art New DC

New STIHL DC – On Time, In Full and On Budget



Ken Collier

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STIHL is the world’s leading brand of chainsaws. It reached this position by sticking to three main principles - strict adherence to product quality standards; innovative design based on market needs; and, reliable spare parts and service back up through a servicing dealer network.

In Australia, STIHL is also the leading supplier of quality outdoor power products. The operation has responsibility for marketing and distribution in Australia and the Pacific Islands. With a turnover of \$95 million a year, it’s the sixth largest in the STIHL Group.

STIHL had been operating its previous distribution centre for over 22 years. Systems were outdated; the facility had undergone several transformations resulting in practical inefficiencies;

and, the overall management of the warehouse was disjointed. So in early 2004 the decision was taken to build a brand new facility.

The new Distribution Centre is in Knoxfield, East of Melbourne and supplies product to STIHL warehouses in Queensland and Western Australia, plus some 500 dealers nation-wide and exports to several distributors.

According to Ken Collier, Commercial Manager at STIHL, the old facility was also not in line with the STIHL's global image.

"Around the world, STIHL is very conscious of the company's image and it takes great care to protect and maintain the brand as representing premium products," said Collier. "So when it was apparent that the old distribution centre wasn't coping with our current business, let alone the planned growth, the decision was taken to build a brand new facility that was in keeping with these values." And what a facility it is. STIHL has

very best has been installed right down to the quality of the IT cabling. No expense has been spared to make this the best workplace for our staff and the resulting customer service we expect to provide" he said.

And this quest for excellence is also reflected in the storage and order fulfillment system installed by Dexion.

The facility boasts the most modern computerised storage and retrieval systems available. They include barcode verification of stock movements and fully automated storage and computer controlled picking of orders. The systems in place are accredited under the strict international quality control standard ISO 9001.

"This distribution centre follows the design of all new STIHL warehouses around the globe" said Collier, "and our parent company logistics team in Germany had strong opinions on what

technology was required to cope with the seasonal fluctuations and the future growth of the business."

The warehouse features 19,000 unique locations and an average day will see 400 orders picked and despatched. However during peak periods, in the lead up to seasonal promotions, up to 700 orders will be processed in a day. These orders can vary from a full pallet load of mixed product to a single 300 gram spare part, and on average there are 7 line items per order. "In the first full day of trading here we receipted five 40 foot containers and despatched four B-doubles of orders which is a great result for our small team and the new systems" said Collier.

"We worked with Germany to integrate the best of the existing system and their latest international requirements. When we were all satisfied with the final designs and concepts we invited a number of suppliers to tender for the job," said Collier, "and it was quickly

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constructed a \$17 million state of the art warehouse where the 'worlds best building products' have been installed to ensure the building meets the highest European standards and eco friendly guidelines.

"Culturally, our German parent company believes in quality and every new STIHL warehouse, wherever it is constructed around the globe, features the very best and latest in fixtures and fittings," said Collier. "By Australian standards we think this is a unique warehouse. We imported the Paroc insulated wall panels from Europe, have doubled the roof insulation, installed rapid roller doors, designed a summer hot air purging system in the warehouse and have workstation localised heating for the warehouse team" he said. "The office windows and office furniture, for example, feature the very latest ergonomic design. The



Computer Controlled Order Picking



Three-tier Ultima HI-280 Pick Module with Fork Lift Accessible Load Tower

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evident that Dexion were the only company that fully understood the complexities of the system, and in our opinion they were the only company capable of delivering 100% of our requirements.”

However, there was one major hurdle that had to be negotiated before Dexion could be awarded the contract. STIHL Germany is only prepared to work with preferred suppliers and Dexion didn't have 'preferred supplier status'.

“We discussed the 'preferred supplier status' issue with Dexion's Mark

Barracrough,” said Collier, “and he asked how the hurdle could be removed. I suggested he would have to speak directly to the management team in Germany and within 48 hours he was on a plane to meet them face to face. ‘Preferred supplier status’ was approved there and then,” he said.

There are a number of unique elements with the solution. Firstly, the pallet racking in the bulk storage area of the warehouse is specially manufactured for STIHL.

“Because our product is imported from Europe, it arrives on Euro Pallets

which have a depth of 1.2 metres. So, to avoid over-hang, Dexion had to manufacture a racking system that was 1.2 metres in depth with beam lengths of 4.9 metres. To allow for all pallet options we needed to install decking between the beams and the choice of mesh has resulted in an excellent overall presentation in the warehouse” he said.

The Dexion solution also includes a three tier Ultima HI-280 mezzanine pick module featuring varying shelf configurations and a fork lift accessible load tower. The HI-280 is used for small parts storage.

Ultima HI-280 is the next generation of shelving systems as it is designed to make the nut, bolt and the rivet redundant. Components simply slot together to give very rigid structures. All accessories have been “designed-in” from the outset ensuring there are no awkward afterthoughts or add-ons.

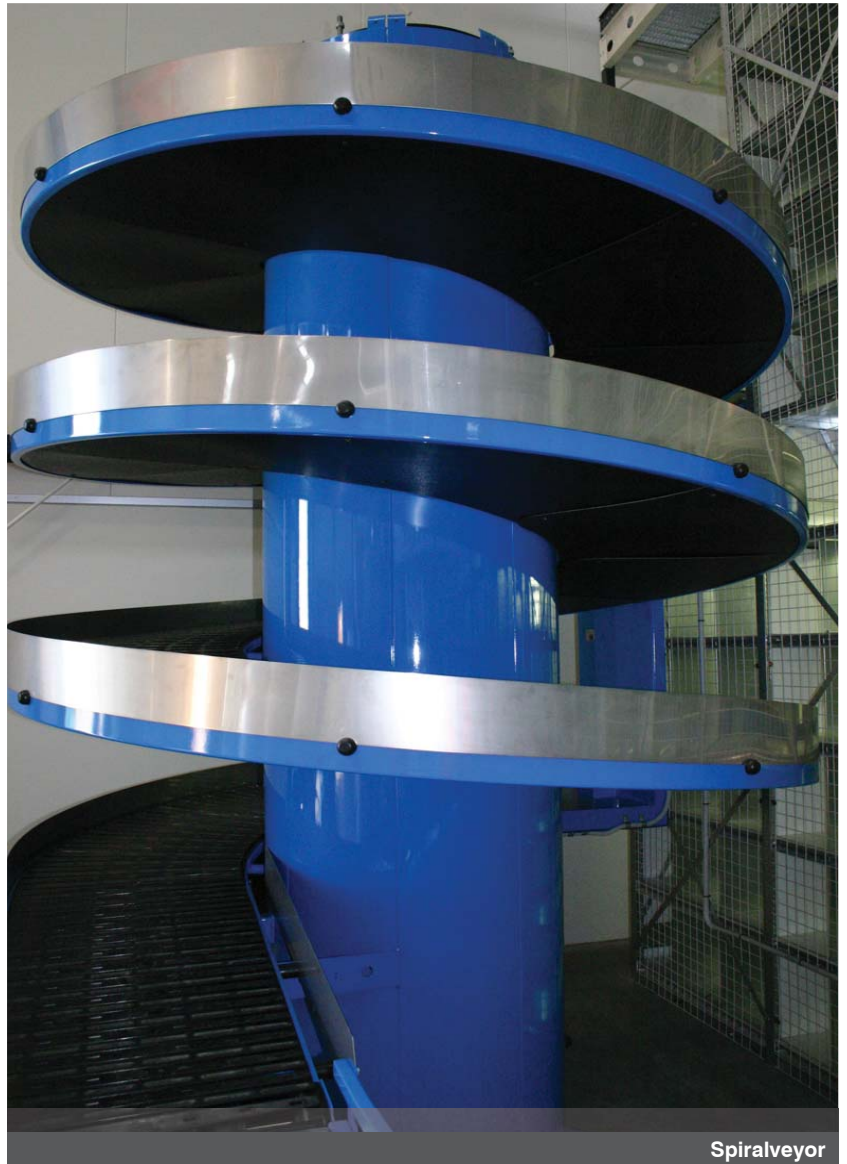
HI-280 system is ideal for storage and distribution companies as it offers immediate, yet secure, access to all items in storage. Short routes mean better product flow which helps to increase productivity and flexibility.

The three-tier pick module is serviced by a conveyor system and spiralveyor. Both are responsible for the accumulation and transportation of totes. The conveyor supports a pick and replenishment system and includes a zone routing functionality utilizing coda bar technology.

The coda bar technology works by the user manually sliding a reflective tab to the correct numerical position on the bar. Each position represents an action point in the system; for example a picking zone.

The system has been designed to convey standard ‘tote’ bins that have reflective coda bars secured to the tote to allow photo-electric cell identification and routing through the site.

Zone diversion is facilitated through reading of the reflective coda bar on the tote as it passes photo-electric cells on the conveyor route. At each zone where picking is required, a transfer moves the tote to a gravity conveyor where the operator will commence the pick process. After all zones have been picked, the last operator positions the coda bar to go to the sorting and packing, void fill or subsequent consolidation zones.



Spiralveyor

Dexion was also responsible for the integration of four vertical carousels into the overall solution.

“Obviously, with the complexities of the solution and with Germany constantly fine tuning the plans the lead times blew out somewhat and in the end Dexion were faced with a fairly tight implementation time frame,” said Collier. “So we sat down with Stuart Macnab and John Wilson from the

Dexion Project Management team to discuss the project plan.”

“It’s during these meetings that you are reassured that you have chosen the right partner. They are passionate about their work and they are prepared to address the issues head on. Their communication is excellent,” he said, “and they also provide tools like the E-Project Enterprise Application which enables us to monitor every document, every purchase made and every communication in real time,” he said. “So you can monitor the progress of the project from anywhere and at any time. Needless to say we have built a close relationship with Dexion, and in fact we ended up contracting them to do more work,” said Collier. “I’m happy to report that the project came in on time, in full and on budget.”

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