

Case Study

Manufacturing output accelerated when global fabric leader, Stretchtex, asked Hasemer to design and install a new lifting and moving solution

Australian company, Stretchtex, is a world leader in the development and production of sun protective and chlorine resistant swimwear, and performance and compression fabrics.

Located in Revesby, NSW, Stretchtex pioneered body compression fabrics worldwide. As a market leader the company continually develops new products and keeps abreast of technological advances in yarns and fibres.

'Our competitive edge is maintained through our commitment to research and development and our manufacturing process,' explained Alan Gibson, Financial Controller for Stretchtex.

'As part of this commitment we are always tweaking and improving our manufacturing plant to make it more efficient and safer. One of the areas we were particularly keen on overhauling was the way in which we load yarn onto our knitting machines,' added Alan.

Traditionally the company used a forklift to move the jumbo beams, which are full of yarn, onto the knitting machines. Each set of three jumbo beams weighs about 1.5 tonnes. The jumbo beams were then manually fixed to the knitting machines by two men using a shaft that weighs about 70kg. The entire exercise took about half an hour per beam to complete.

The process was time consuming, laborious and it increased the risk of accident. In addition, because the 14 knitting machines run a minimum of 24 hours, 5 days a week, it was a process that could be repeated up to 7 times a day, increasing the chance of risk.

'We were keen to implement a process that required less use of manual labour, was far more efficient and which improved our safety profile,' said Alan.



The gantry on site at Stretchtex.

Impressed after seeing first-hand a solution that Hasemer had supplied to a third party, Stretchtex invited the company to assess their dilemma and provide a workable option.

'After discussing the company's needs at length and taking into account the physical constraints defined by the plant itself, we were able to identify a number of options,' said Vinesh Khosla, Hasemer's crane specialist.

The solution provided by Hasemer needed to take into account the fact that the building does not have high ceilings and that the knitting machines form 2 long rows that are about 35 metres in length. The lifting and moving solution also needed to be economical to implement.

Hasemer provided Stretchtex with a Hercules mobile gantry that has a lifting capacity of 2 tonnes. The gantry was purpose built and features an 8 metre internal span that allows the gantry to comfortably cover the two rows of knitting machines. The gantry was also specifically built to a height of 4.2 metres under the beam to ensure that it worked within the confined height of the building.

A GIS electric chain hoist and a motorised trolley can be found under the gantry. It has a lifting capacity of 2 tonne so that it can raise with ease the 1.5 tonne jumbo beams. Designed for heavy industrial use, the GIS electric chain hoist is robustly constructed for maximum strength. It also offers a range of speeds and delivers a string of safety features.

To easily move the large mobile gantry, Hasemer also designed and installed single channel rails that were bolted on either side of the two rows of knitting machines. The crane's wheels sit in the rails making it easy to direct the mobile gantry along its 35 metre path.

'Our new mobile gantry is a great advance over the forklift method we were previously using. It allows us to load a jumbo beam onto a knitting machine far quicker than the forklift option. This of course, has helped us reduce our plant downtime considerably while improving performance.

'It has also enhanced our safety profile. Only one-to-two men are required to change the beams compared with the original two-to-three. We are also almost 100% confident that there is now no risk to the safety of our staff.

'The lifting and moving solution presented by Hasemer also proved to be quite economical. In fact, we ended up ordering two hoists,' said Alan.

Stretchtex's Plant Manager Operations, Norman Orly, agrees, 'The Hercules solution met all our requirements. It's improved our productivity and safety while reducing costs.'

According to Alan the transition from using the forklift to the crane was also remarkably easy and smooth.

'The crane has proven very easy to use and required minimal training. It doesn't demand the precision and skill that is needed with a forklift,' added Alan.

The project, which involved taking the initial brief, designing, building and installing the gantry and rails, took about three months to complete.

'Even before we met with Hasemer we were impressed with what we had heard about them. Now, after working with them and having the final product up and running I can say that they certainly do live up to their excellent reputation,' concluded Alan.



The two gantries at the start of their 35m path.