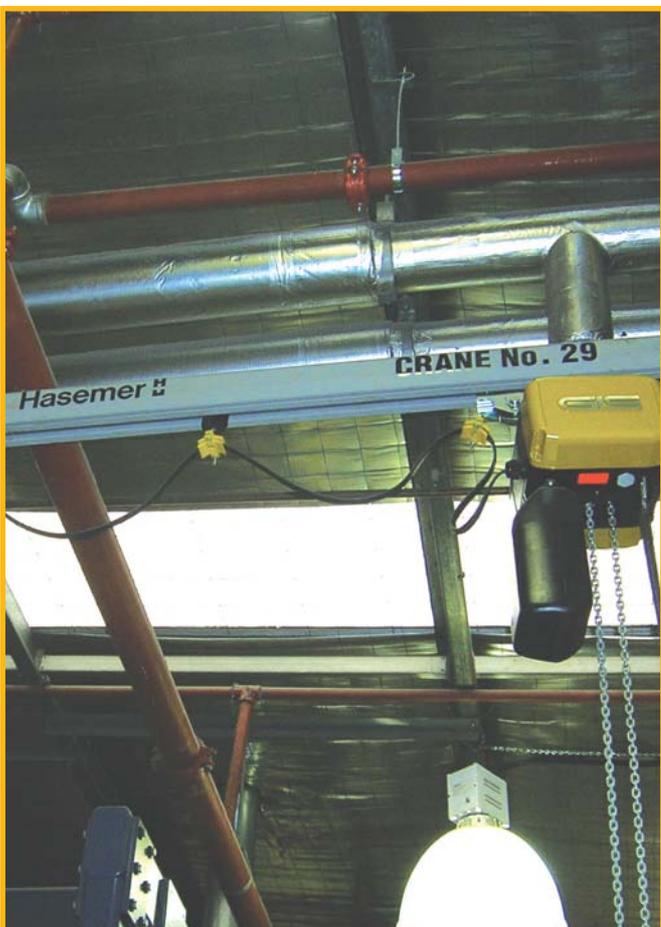


Case Study

Offset Alpine overcomes challenges to improve processes and safety

Offset Alpine has been providing high-quality magazines, catalogues, corporate and commercial printing to businesses across Australia for close on 70 years. The company is recognised as one of Australia's leading web offset and sheetfed printers.

Located in Sydney, Offset Alpine is a member of the Independent Print Media Group which has branches in Melbourne and Brisbane. The plant has a large number of heatset web and sheet-fed presses to provide flexibility across a diverse product range. Extensive prepress, bindery, finishing and mailing facilities complement the company's printing capability.



The GIS KB Crane System in place at Offset Alpine.

Among its equipment is a state-of-the-art ultra violet coating press. Situated on a mezzanine floor at the plant, the machine requires that its printing rollers be changed about every three months. These metal rollers can weigh as much as 300kg and given the confined space in which the machine is physical located, the task had traditionally been undertaken manually.

According to Keith Lee, Plant and Project Manager for Offset Alpine, a few men were required to move each of the heavy rollers.

'About four men were needed to lift them onto the mezzanine level using rope and slings. Or, depending on the weight, we would use a forklift to help lift the rollers up. Either way it raised the risk of physical injury to our people, which is something we were trying to minimise.

'Apart from having to manhandle the rollers, the process was laborious and time consuming, so we had to find a way of moving the rollers,' said Keith.

Hauling the rollers in such a manner also posed a danger to the ultra violet coating press as well as the possibility of damaging the rollers themselves.

'You only need a slight slip of the hand and the roller could end up coming into contact with a rail or some part of the coating machine. Once scratched, the roller, which costs thousands of dollars, is useless as the scratch marks are likely to appear on anything that is fed through the press. We needed to identify a safer and more efficient means of moving our gear,' explained Keith.

Faced with this challenge, Keith decided to call in Hasemer Materials Handling, a company he had used repeatedly in the past.

'I'd worked with Hasemer before and they'd proven themselves to be a great supplier. Professional, efficient

and given the problem we were faced with as well as the physical limitations I felt I really needed somebody who knew what they were doing,' said Keith.

According to Vinesh Khosla, Hasemer's crane specialist, the problem faced by Offset Alpine proved challenging for Hasemer. Apart from lifting and moving the weight of the rollers, the design and installation of the crane had to take into account the physical constraints that surrounded the printing press.

The ultra violet coating machine is located on a small, confined mezzanine floor so physical space in which to work and set up a crane system is minimal. This was compounded by the fact that the mezzanine floor is also very close to the ceiling, providing little headroom between the top of the printing machine and the ceiling.

In addition, given that Offset Alpine was a printing firm, Hasemer could not weld any material on site as the remnants of the welding process can prove to be a fire hazard in a paper based environment.

To meet Offset Alpines needs, Hasemer designed and installed an overhead crane system that was suspended from the roof and positioned directly above the printing press. The GIS KB crane system has a capacity of 400kg with an internal span of 2.3m. Its bridge length is 2.6m and travels along an 8m KB II reinforced track. The track is very compact and requires little headroom. To support the runways, existing support beams were used as no room existed to install new beams. A GIS GCH 250/2NF hoist, de rated to 400kg that delivers a 6m lifting height was used to complete the system.

As Hasemer was not permitted to weld on site, the crane system was assembled as much as possible offsite and any welding was done at Hasemer's premises. Rather than weld the runway and track to the beams and ceiling, holes were predrilled so that they could instead be bolted.

The various components of the crane system were then physically lifted to the mezzanine level using chain blocks, while scaffolding was setup to help install the system. In all, it took about two days to move the crane parts of the system up onto the mezzanine floor and to then install them.

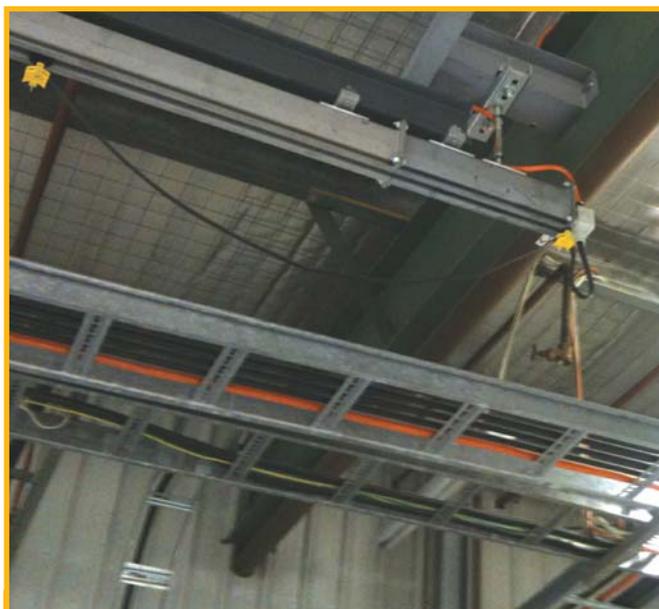
'Because of the restricted space around the press, logistically there was no other option but to have our men

physically move the various crane components onto the mezzanine floor,' said Vinesh.

'Physically it was quite a challenge getting the hoist in place but Hasemer weren't put off by this and I was happy to have the press off line for two days as it was certainly going to be well worth the effort in the long-term,' added Keith.

Since having the crane/hoist system installed, Keith explained that a single operator now moves the rollers quickly and with ease. The entire process runs far smoother. In addition, the risk of damage to the rollers and the printing press has been minimised as has the risk of accident and injury to staff.

'I take comfort from the knowledge that we have installed a well engineered system that is not only much more efficient but has removed the manual handling component of this difficult process,' said Keith.



Tracks suspended from the ceiling support the overhead crane.