

# Factories enjoy lighter side of cranes

OH&S and productivity demands are driving a boom in light workstation cranes.

BY SARAH COLYER

**T**HE logic of using a cumbersome overhead crane to lift a 30kg load is no logic at all, but manual lifting is an irresponsible alternative. Thankfully, smaller workstation cranes are just starting to occupy 'a place of their own' in the market, a number of crane companies recently testified.

Dawn McFarlane, managing director of Bomac Engineering told *FEN* manufacturers are increasingly interested in smaller workstation cranes.

"It used to be the thinking that if we need to lift 30kg then why not have a crane that can lift 1000kg? This is like using a hammer to crack an egg when a spoon works better," she explained.

"A great number of workstation cranes are being installed to overcome OH&S issues. The OH&S laws are requiring more pro-active rather than reactive answers to safety in the workplace and it is in the lighter end of the lifting range where people who 'think' they can lift a load can cause them-

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Staff can lift at the same pace all day every day with small workstation cranes. (Photo courtesy of Demag)



Small workstation cranes are not a big investment compared to overhead cranes. (Photo courtesy of Konecranes)

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elves harm."

Konecranes president of South Asia Pacific, Ed Yakos also reported an increasing business focus on smaller cranes, particularly its XM Workstation Cranes for loads ranging from 125-200kg. These are vastly different from the 3000t EOT cranes for which Konecranes is most renowned.

"Sales of lighter cranes have

risen more than tenfold over the past couple of years, and we still see considerable potential for our technologies which offer the speed, safety and precision essential for efficient crane operation in modern workplaces," Yakos said.

Demag has also been experiencing a boom for its smaller KBK workstation cranes, national sales and marketing manager, Ron Peterson, told *FEN*.

"Customers are very much going for more purpose-built cranes, or workstation cranes of lower capacity, in combination with the five, ten or 20 tonne overhead cranes," Peterson said.

Like Dawn McFarlane, Peterson said both OH&S and productivity incentives are driving factory owners toward the smaller end of the crane spectrum.

"You can tell workers they

"Employees just want to get on with the job and don't want to wait around on the large overhead crane."

shouldn't lift things above 20-30kg but many employees just want to get on with the job and don't want to wait around on the large overhead crane. They'll try and turn it over manually where they really need a hoist or crane. If workers get injured and you've got compensation claims, they'll drive your costs right up," Peterson said.

"Where you've got repetitive jobs lifting a small load, workers doing it manually will be much slower at the end of the day. If they've got a hoist or crane they'll be able to do the job at the same pace the whole day. At \$5000 or thereabouts, a small workstation crane is not a big investment compared to an overhead crane."

Dawn McFarlane reported that Bomac has supplied many workstation cranes to replace bigger, more cumbersome cranes which employees

refused to use. A particular case was at a door manufacturing facility where Bomac replaced the larger crane with a Bomac Altrac for loading doors onto an edge trimming machine. This not only improved throughput on the line but positioning the door onto the machine went from a two person to a single person operation.

Another case in point is Konecranes' installation of its own XM workstation crane system at its new Light Lifting Equipment Centre in Unanderra, NSW.

Small workstation cranes are typically light weight, with very little rolling resistance. Lighter loads are usually easily moved by hand, with motorised control options recommended for greater loads. For more information on the workstation cranes offered by different companies see the table on page 20

Product	Best Feature	Ease of use	Applicability	Limitations	Comments
<p>Gorbel workstation crane</p> 	<p>A 2" taper of the track running flange and wheels helps centre the trolley for smooth movement. Enclosed track design eliminates dirt and dust from rolling surface to reduce wear on wheels. The track is low-weight.</p>	<p>Gorbel workstation cranes are engineered to reduce friction and weight for easy use and precision speed when moving a workload. The smooth running surface reduces rolling resistance, as do the DursComp 4 wheels.</p>	<p>The low profile of the steel track allows system installation where headroom is a problem. Long spans allow systems to be installed where hanging points are infrequent.</p>	<p>Comes in five capacities: 125 kg, 250 kg, 500 kg, 1,000 kg and 2,000 kg.</p>	<p>Safetech 03 5127 4566</p>
<p>Bomac Altrac</p> 	<p>Aluminium alloy construction makes this crane light weight – 7kg per metre. Long spans can be achieved and curves can be shaped. It is easy and quick to install – all you need is a spanner and pop riveter. It is also Australian made.</p>	<p>Because the trolleys are virtually free-running, (less than 0.5% rolling resistance) the load can be moved with very little effort. External track system makes it easy to maintain as individual trolleys are easily accessed. It will not jam easily.</p>	<p>Any type of lifting device can be attached to an Altrac crane. The light weight of the track means it can span long lengths without supports. Altrac can be used to create jibs, monorails and overhead gantry cranes.</p>	<p>Altrac cranes can accommodate a safe working load (SWL) of up to 1000kg.</p>	<p>Bomac 03 9796 5300</p>
<p>KBK workstation cranes</p> 	<p>There are no skewing forces like in a rigid crane. The connection point between the crane bridge and the runway is not fixed and single girder cranes articulate at these points. The runway tracks 'float' in the horizontal plane.</p>	<p>The modular make up of KBK cranes make them easy and cost effective to extend and convert. Standardised connection dimensions make for fast assembly.</p>	<p>The single-girder cranes allow heavy and awkward components to be moved quickly and easily by hand. The double-girder cranes can also be easily moved by hand however electric friction wheel travel drives are recommended for greater spans and loads.</p>	<p>These cranes can be built in a range of load capacities from 80kg to 3,200kg.</p>	<p>Demag Cranes &amp; Components 02 9609 9500</p>
<p>Konecranes XM Workstation crane</p> 	<p>Offers light movement without shocks, silent running of trolleys, modularity and pendulum construction - which imposes less stress and loading on the support structure. They are high strength, meaning less suspension and less structure.</p>	<p>The modularity of XM profiles and components makes them easy to install, extend and modify. Their enclosed profile structure gives smooth and ergonomic handling.</p>	<p>These crane systems are purpose-built for use over manufacturing cells or for expansion into an integrated, factory-wide material handling system. Single girder cranes are easy to use by hand, with motorised travelling available for heavier loads.</p>	<p>The load range for single bridge girder cranes is 125 - 1600 kg. For double girder bridge cranes the load range is 125 - 2000 kg.</p>	<p>Konecranes 02 8796 7666</p>