

## Two bandsaws replace four conventional machines

# Langley Alloys increases capacity as orders up sharply

**A**t the Newcastle-under-Lyme facility of special metals stockholder, Langley Alloys, two German-built KASTOtec bandsaws specified for cutting with tungsten carbide tipped (TCT) blades have replaced four out of six machines from a different supplier, which are effective only when bi-metal blades are used. As the downfeed on both KASTOtecs is three times faster, overall cutting capacity across the six machines has increased by one-

third while the floor area occupied has decreased by a similar amount. This is precisely what Langley Alloys needed, as orders have increased sharply since the start of 2017 but there is no room on the site for more bandsaws to handle the higher throughput.

As an added bonus, the freed space has allowed

the stockholder to increase the range of materials and sizes that it holds to well over 1,000 line items. For example, Alloy 254SMO stainless steel is now stocked in bigger quantities, Alloy 2205 duplex stainless steel has been added and the variety of nickel alloys has been expanded from Alloys 625 and 718 to include

Alloys 725, 825 and K-500. The investment, approaching £2m in stock alone, means that Langley Alloys has extended both the range and depth of material available. Business development director Rodney Rice said: "Our success is despite half of our business historically being in the oil and gas sector, which has

**The KASTOtec AC4 in operation at Langley Alloys, Newcastle-under-Lyme**





**The second KASTO bandsaw installed by Langley Alloys is a purpose-built 'carbide' version, KPC, which has additional equipment designed to suppress vibration**

but at three times the consumable cost.

"We are not quite there yet, but we will soon be getting 5 to 6 square metres cutting area per TCT blade on the KASTO-tecs, so cost per cut will be equivalent to bimetal in terms of the consumable cost alone. Taking into account lower labour costs due to operating four rather than six bandsaws, five days a week and sometimes on Saturdays, plus more capacity for lights-out running, the new machines

been depressed in recent years. Offsetting that, we have seen significant growth from many of the other industries we supply, including defence, marine, pulp and paper, chemical processing and general engineering.

"Responsiveness to customer demand is crucial. Installation of the Kasto bandsaws means that we are able to stock a broader range of materials that closely match users' requirements and cut them quickly for supply in short lead-times."

Operations director Richard Bulmer added: "Cutting with TCT blades was key to making this a reality. We tried using them on our older bandsaws but they were not rigid enough to cope. The band would

squeal through the guides and excessive vibration wore the teeth out quickly. We were only able to cut

2 square metres of nickel alloy with a carbide blade, which was about the same as with a bimetal blade

**Close-up of the control of the KPC bandsaw**





will pay for themselves quickly.”

He added that when it came to purchasing the carbide-enabled bandsaws, there was a preconception within Langley Alloys that Kasto was the way to go, as this make of saw is used widely in

speeds up to 50 metres/min, which compares favourably with typical bi-metal blade speeds of a little above 20 metres/min. The other saw was a Kasto Performance Cutting (KPC) model, designed and built specifically for cutting using TCT blades

sto for a four-week trial installation of the first bandsaw in Newcastle-under-Lyme so that further side-by-side cutting comparisons could be made with the conventional saws on site. These proved beyond doubt that the KASTOtec was ideal for

ines are so accurate that they can be set to -0, +0.5mm with confidence. In practice, they cut to within 0.1mm. Over a large batch and especially when processing expensive alloys, the saving is significant.

Another feature of the bandsaws that the stockholder appreciates is a function within the Kasto control that allows a new TCT blade to be programmed to run-in automatically at different, reduced speeds to suit the tooth pitch.

Langley Alloys, which was founded near Slough in 1938, grew steadily throughout the Second World War. Several successful alloys were developed including the high strength Naval alloy Hidurax Special and the copper alloy Hidurel 5, from which engine bearings on the Spitfire aircraft were made. Even today, four of the company's 43 staff are metallurgists, able to provide customers with detail-



**Large diameter stock being cut by Langley Alloys on one of the KASTOtec bandsaws**

the stockholding sector, especially for cost-effective cutting of high performance materials.

As the machines were needed quickly, a decision was taken to purchase the two 430mm-capacity KASTOtecAC4 models on display in the supplier's Milton Keynes showroom. One was fitted with a so-called carbide pack, including uprated motors to allow infinitely variable band

with the inclusion of patented Trum guides to minimise band vibration on the side opposite to the point of cutting.

Initially, Bulmer took some Ferralium super duplex stainless steel bar to Milton Keynes for cutting trials, as the material forms a large percentage of throughput at Langley Alloys. Following successful tests, a purchase order was placed on Ka-

processing difficult alloys, including high strength nickels, which are slow to cut using a bi-metal blade. Both machines were duly installed on a permanent basis.

Since their arrival, further cost savings have accrued from reduced material wastage. Whereas the older saws are set to cut to -0, +2mm to ensure that material length is not undersize, the Kasto mach-

led technical guidance and support.

In recent years, the stockholder has largely reinvented itself by focusing on the distribution of bar, tube and plate in a variety of corrosion resistant alloys alongside its proprietary products. The opening of sites in the United States and Singapore has added the ability to provide a high level of support to customers worldwide.