

Customer Reference – KARMETAL

HIGH PERFORMANCE SAWING

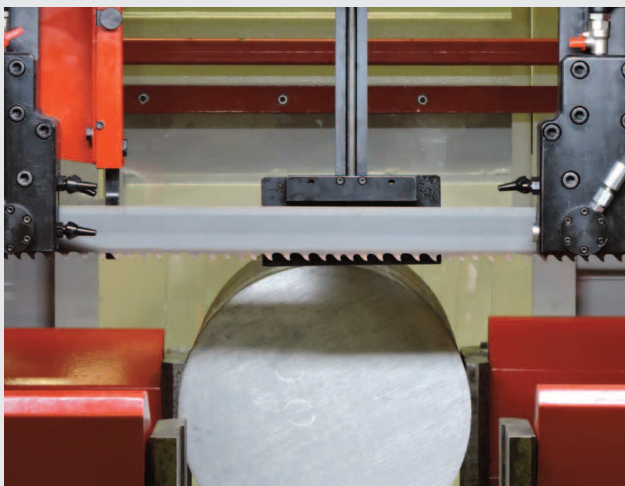
Increased productivity when processing steels in diameter up to 300 mm



MACHINE PARTNER

Since its foundation in 1975, the family-run, medium-sized manufacturer of special machines KARMETAL has been committed to producing spare parts for the automotive and defense industries. Since 1997, KARMETAL has concentrated on the production and service of band and circular saw machines.

The Turkish market leader currently sells its innovative machines in over 60 countries and supplies services from its branches in Germany and USA also.



CHALLENGES AND REQUIREMENTS

For the changed demands of today's saw users, KARMETAL developed a high-performance band saw machine specifically designed for industrial applications – for example in forging plants as well as in mechanical engineering or steel trading. The manufacturer thus expanded its machine portfolio with the ULTRA 300 × 300 high-performance band saw machine.

This new model was designed to improve cost-effectiveness in high-performance sawing for serial cuts up to 300 mm in diameter. This new generation of machines was also intended to rival the performance of the large circular saws previously used in this dimensional range.

The aim was to exhibit the new innovation for the first time at EMO 2019 in Hanover, the world's leading trade fair for metalworking, in order to pique the interest of target customers and thus promote sales.

Until then, in the final phase of machine development, it was still necessary to realize the vibration-free use of the band saw blades to also enable rapid cutting of case-hardened and tempering steels as well as high-alloy structural steels with a diameter of up to 300 mm. The band saw blades previously purchased on the market were extremely susceptible to vibration. Under these conditions, in addition to a reduced lifetime of the band saw blades, it was also not possible to meet the usual required noise emissions.

THE SOLUTION

WIKUS CARBIDE BAND SAW BLADES FOR HIGHEST CUTTING RATE

For the latest generation of machines in the KARMETAL portfolio – the ULTRA 300 x 300 – high-quality and high-performance carbide band saw blades were required. *WIKUS FUTURA*[®], *FUTURA*[®] PREMIUM, and *ARION*[®] FG were the only products that met the requirements for processing performance, noise emission and lifetime.

Both *FUTURA*[®] PREMIUM and *ARION*[®] FG, with their special hard material – as well as the additional back edge coating, are used for serial cuts with the highest cutting rates in continuous operation and show a high reliability – even in automated production.

WIKUS thin-cutting technology for highest cutting speeds

In the performance test, the special WIKUS thin-cutting technology of the *ARION*[®] FG also enabled more saw cuts in the same time. Thanks to the reduction of the kerf, it also allowed sustainable handling of the cut materials. Thanks to their unique properties, these band saw blades were thus ideally suited for large-scale production and mass cutting processes in high-performance sawing applications and met KARMETAL's technological requirements.

Because of the approx. 31 % smaller kerf width of the *ARION*[®] FG (thin-cutting technology) and the cutting speed achievable by the ULTRA 300 x 300, a processing performance of up to 590 cm²/min was achieved during a performance test at KARMETAL. This performance was achieved on the material CK45/DIN No. 1.1191 with a diameter of 250 mm. Furthermore, *ARION*[®] FG allowed ULTRA 300x300 exceed the cutting speed of circular sawing machines and reducing the cutting kerf up to 60 % with great productivity.

SUCCESSFUL SALES THANKS TO WIKUS & THE TURKISH PARTNER PERKO



“Thanks to WIKUS for the excellent and timely technical advice and provision of the band saw blades, we can look back on a successful EMO 2019 and presentation of our ULTRA 300 x 300 high-performance band saw machine. To date, we have sold around 12 ULTRA machines, and further machines on customer order are already in production.

After the great achievement of our collaboration with WIKUS, we revised all cutting parameters compatible with WIKUS blades. I think our collaboration with WIKUS will lead us to push the limits of band sawing.”

Fatih KAR
Managing Director KARMETAL

WIKUS SUPPORTING SERVICE



Comprehensive technical advice and product selection

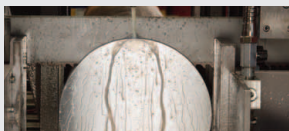


Setting the cutting parameters



Cutting tests and performance tests

PROVIDED WIKUS PRODUCTS



ARION[®] FG:

The premium class of band sawing



FUTURA[®]:

The high-performance bestseller band saw blade



FUTURA[®] PREMIUM:

The high-performance bestseller band saw blade coated with hard material

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