

POWERFUL SOLUTIONS – PASSIONATE PEOPLE



KALTENBACH

DEVELOPED FOR STRONG PERFORMANCE.

In this catalogue you will find:

- ▶ Band sawing machines
- ▶ High-performance thin-section circular saw
- ▶ Drilling machines
- ▶ Coping robot
- ▶ Punching and shearing systems
- ▶ Plate processing centres
- ▶ Measuring systems
- ▶ Transport systems

Other catalogues:

- ▶ Universal mitring circular saws
- ▶ Shotblasting and painting systems



**REQUIREMENTS MAY CHANGE
OVER TIME.**

BUT GENUINE QUALITY IS TIMELESS.



The work of anyone involved in metal fabrication or processing, sawing or drilling, milling or thermal cutting is not of a transient nature. They are creating something for the future. And when working with such durable materials, it's best to rely on long-term partnerships. Reliable partnerships with powerful, premium quality machines which provide a high level of production safety day in, day out – and trustworthy partnerships with dependable, dedicated individuals who provide long term support.

Lasting values have a long tradition at KALTENBACH. Over 125

years' experience has taught us that working with our customers is the best way to find the right solution.

In this product catalogue you will find information about the range of applications, including individual components, technical data and special benefits. Help and advice from our staff in Sales, Technical Services and Support are an integral part of KALTENBACH systems.

Whatever your question and wherever you are in the world – we are there for you.

**OVER 125 YEARS OLD –
A COMPANY IN ITS PRIME.**



Sawing

In metal processing, and especially in steel processing, enormous importance is attached to the sawing and cutting process. Different technologies have become established in response to the requirements of machining diverse materials of different size, shape and quality. Users today have a choice of using circular saws or band saws. But regardless of the chosen technology, from the user's point of view the most important factors are speed, quality and precision. These factors have led to the development of cutting media made from – or modified with – different materials such as bimetals or carbides. The market shows that ever greater demands are being placed on cutting processes; in addition to simple straight or mitre cuts, multi-cuts are becoming increasingly common, in which the material is machined at different angles with multiple overlapping saw cuts.

KALTENBACH offers a wide range of sawing machines and will gladly provide advice and assistance to help you meet today's market requirements. Please get in touch and together we will find a solution to make your company even more profitable.



Drilling

It's hard to think of any metal or steel structure that doesn't have to be drilled; indeed, drilling is now considered a basic requirement for any steel processor. Parallel drilling on multiple axes is not the way to maximise efficiency; different tooling options together with an ultra-fast, simple tool change system are also very important. Nowadays processes such as drilling, centre-marking, counter-sinking, thread-cutting, contour-marking and milling can be performed on several drilling axes. In this field too, tools are continuously being improved and new techniques established. Whilst we are systematically improving drilling performance through the use of carbide and solid carbide tools, our high drive powers, torques and rotational speeds provide the necessary assurance that new processes can be integrated with ease.

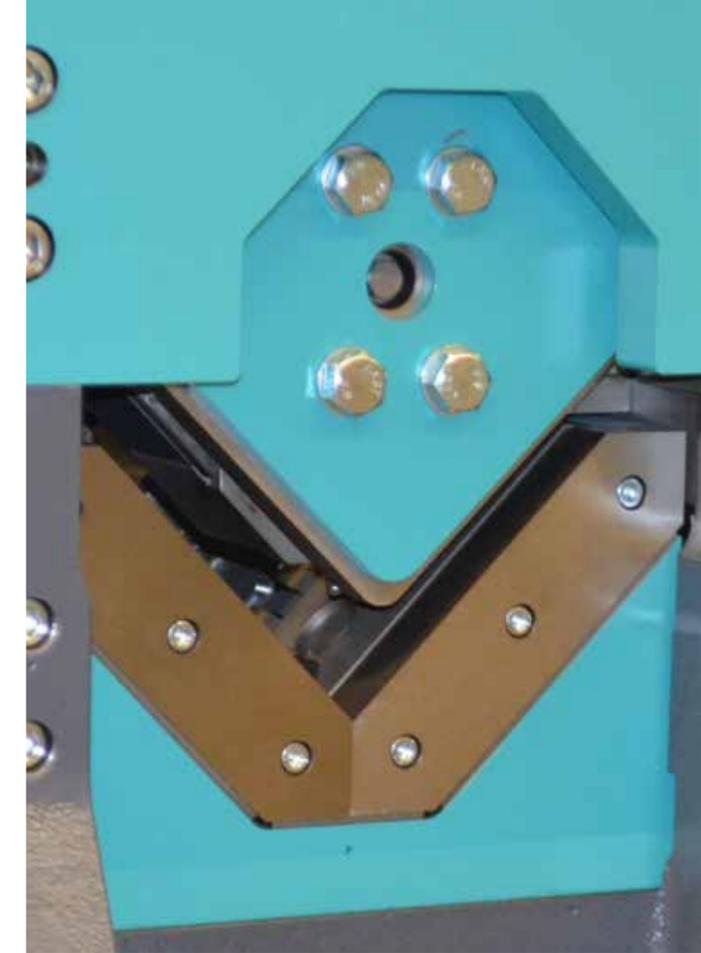
KALTENBACH has a range of different drilling machines in its product portfolio. We are happy to advise you on finding the best model to suit your requirements.



Thermal Cutting

It is hard to imagine steel processing without thermal cutting technologies such as plasma or oxy-fuel. Through the use of modern software systems and multi-axis machine configurations, even complex shapes can now be produced and machined with relative ease. With regard to the design of the machine, the steel market makes a clear distinction between profile and plate machining. Whereas profile cutting machines typically focus on thermal cutting technology, plate cutting machines increasingly use other technologies as well. The surface quality and depth of cut or material thickness largely determine which technology is used, regardless of the shape of the material. Different depths of cut and cutting speeds can be achieved, depending on the technology. So, choosing the right machine configuration and cutting technology to suit the material being machined is the key to success to guarantee speed, efficiency and profitability.

KALTENBACH offers thermal cutting machines for plates and profiles. Please get in touch if you would like further advice – we are here to help!



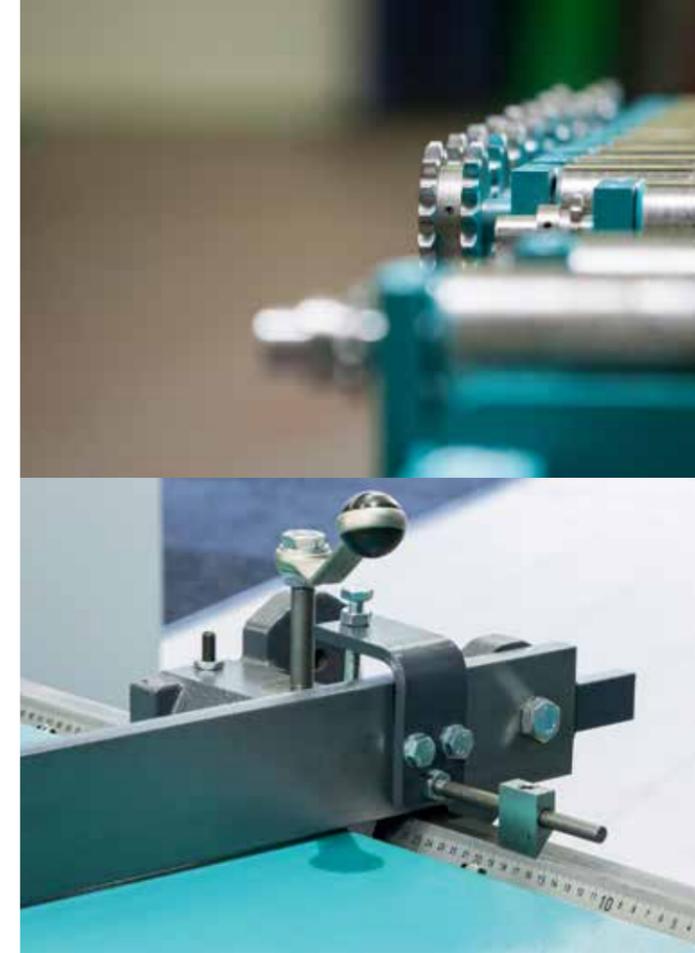
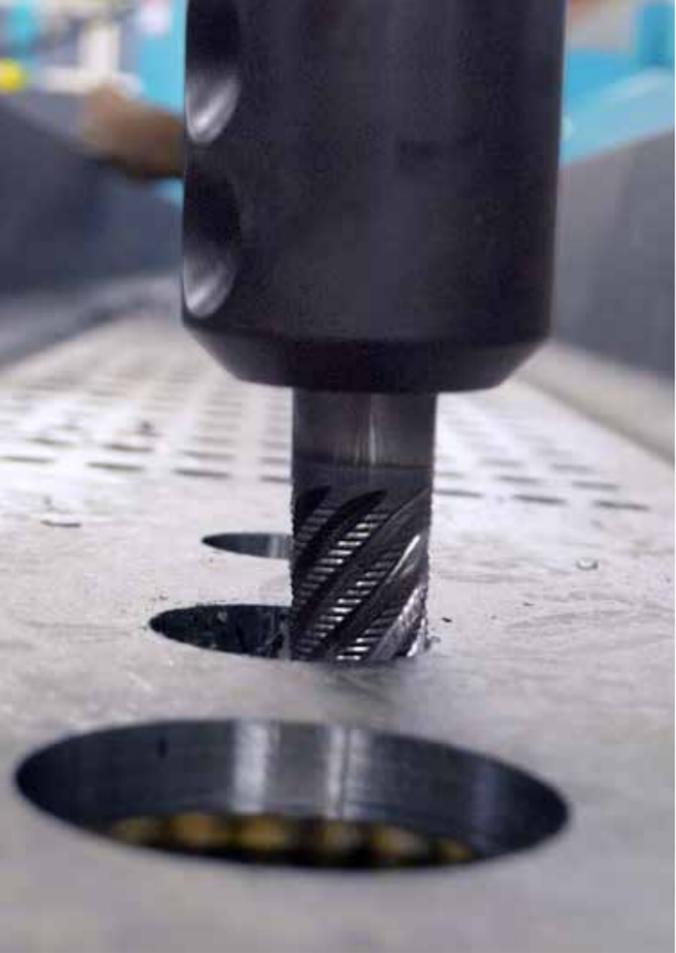
Punching and Shearing

The punching and shearing of angle and flat steel no longer presents companies with a major challenge – providing they have high-performance machines capable of operating with the necessary degree of precision. Punching and shearing processes typically feature a comparatively low production time compared with other technologies such as drilling or sawing. Furthermore, the many different punching dies that can be used significantly increase the range of applications.

The ultimate goal of any machine manufacturer is to provide not only the machine itself, but customised tools to go with it.

KALTENBACH will gladly advise you and supply you with a punching and shearing system ideally suited to your requirements. Please get in touch at any time.





Milling

In steel processing industries, the importance of milling services is constantly increasing, meaning constant technology advancements are required. The milling of complex internal and external contours with different milling tools and strategies is one of the main challenges companies find themselves currently facing. The forces arising in the milling process mean stable and low-vibration structures are particularly important. Due to the high variety of different milling tools and tool materials, it is now possible to perform various operations such as notches, chamfers, slots and pockets efficiently and accurately.

Ask for our references and convince yourself of the most robust machines on the market. The KALTENBACH machinery.



Shotblasting

Shotblasting is used to remove rust, mill scale or similar undesirable side effects in the steel industry. Shotblasting is the process of propelling a stream of abrasive material (small metal balls or steel wire shot) at a speed of approximately 80 m/s at the material surface. It is used to clean plates, profiles and welded structures prior to machining. At what point this technology is integrated into the steel processing sequence is ultimately a question of philosophy. The turbines are cleverly arranged to ensure complete coverage of different materials by the shot. Our shotblasting systems are designed with high material throughput to boost machine efficiency and cost effectiveness.

KALTENBACH will gladly advise you and supply you with a shotblasting system that meets your requirements. Please get in touch at any time.



Painting

Painting is typically one of the final stages of steel processing. Painted finishes of various kinds protect steel structures from external influences and so ensure a long service life. Surfaces must be clean before they can be painted. Shotblasting systems are typically used for this purpose. Shotblasting provides the keyed surface required to obtain a smooth, well-dried paint finish. Optimising paint consumption – which accounts for a large share of the operating costs – is an important aspect of paint systems. Intelligent strategies based on the material geometry are the key to success.

InTEC is KALTENBACH's competent partner for paint systems. Together, we offer a complete package.



Transporting and Measuring

Efficient material handling and precise measurement not only ensure the quality of your products, they also increase your productivity. Measurement systems must be flexibly designed to handle materials of different shape, size and weight reliably. A robust, low-maintenance design and accurate positioning are also hugely important. Automated infeed and outfeed systems and interlinked material flow solutions are becoming increasingly important. The efficient handling of unprocessed and finished products and the tailored integration of systems into existing production environments are the principal challenges in this field.

KALTENBACH has a wide range of materials handling and measurement systems to suit virtually any customer requirement. And thanks to our modular design, individual solutions can easily be combined to ensure successful plant integration within your production environment.





PRODUCT PORTFOLIO

The scope of the KALTENBACH product portfolio is very broad and very deep. In addition to band sawing machines, plate processing centres, drilling machines, coping robots, punching and shearing systems, KALTENBACH also manufactures circular sawing machines and shotblasting and painting systems. This product portfolio enables KALTENBACH to act as a system provider and offer complete solutions tailored to our customers' needs. With high-performance machines, over 125 years of accumulated know-how and a high quality advisory service, at KALTENBACH we know how to boost our customers' efficiency and productivity.

This KALTENBACH product catalogue contains solutions for all aspects of steel profile processing.

For information about other products, please visit: www.kaltenbach.com

LEGEND



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BAND SAWING

KALTENBACH BAND SAWS

ADVANTAGES AT A GLANCE:

- ▶ Robust, low-vibration twin-column construction for perfect cutting results
- ▶ Precise NC-controlled cutting-angle setting
- ▶ Powerful clamping system reliably holds material and reduces vibrations to prolong band life and best cutting results
- ▶ Intelligent material measurement integrated into clamping system for greater process reliability
- ▶ Rapid/working feed concept for shorter idle times
- ▶ Swarf brush to improve cutting performance and reduce impurities in the machine
- ▶ Cut monitoring system incl. cutting pressure and slippage control for optimum cutting quality
- ▶ Laser-assisted cutting edge visualisation for manual cuts



KBS 400 DG | 620 DG | 750 DG | 1010 DG

The KBS 400-1010 series is ideally suited to light- and medium-duty steel fabrication and steel service centres.

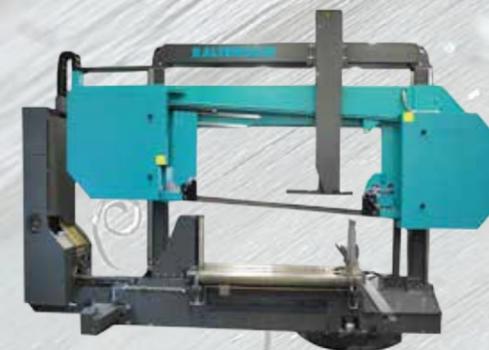
- ▶ Simultaneous cutting of multiple profiles in layers or bundles (depending on machine type)
- ▶ Low investment volume for best cutting results for small to medium profiles



KBS 761 DG | 1051 DG

The KBS 761-1051 series is ideally suited to all aspects of sectional steel fabrication and steel service centres. The machines are specifically designed with a high level of automation, high cutting performance and low maintenance requirements.

- ▶ High process automation can be combined with an autosorter
- ▶ Carbide saw bands for high performance cuts
- ▶ Auto Feed Control automatically controls the saw band angle to suit the profile cross-section, significantly reducing cutting times
- ▶ Saw band feed via ballscrew and servomotor for high-precision control
- ▶ Powerful drives for carbide applications
- ▶ Fast change of the saw band for low idle times



KBS 1301 DG | 2101 DG

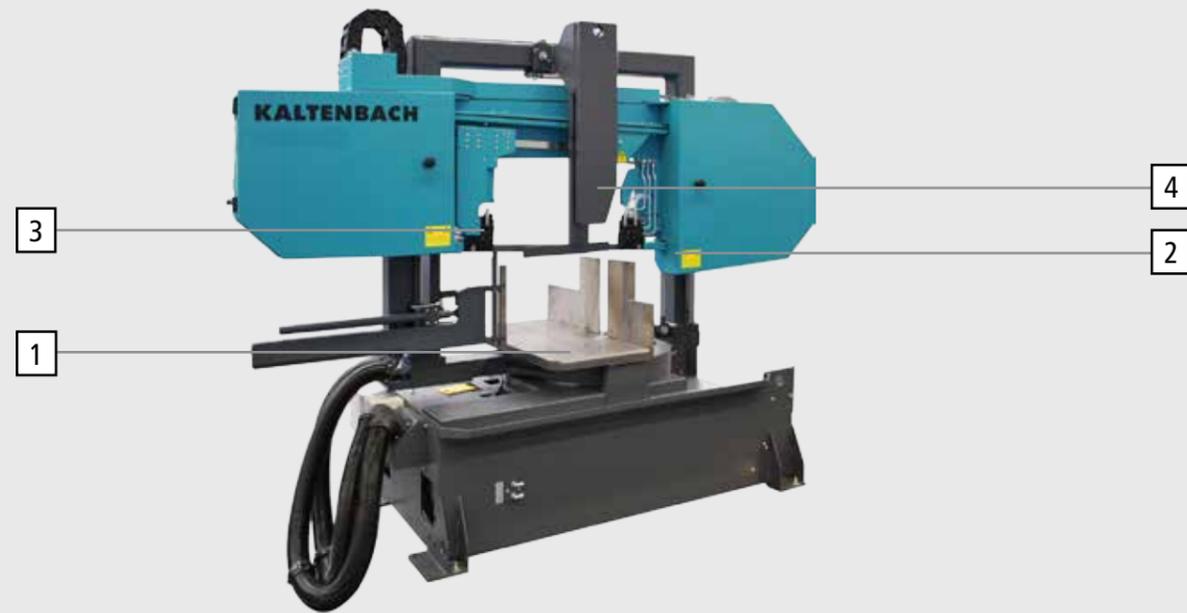
The KBS 1301-2101 series is ideally suited to medium- and heavy-duty steel fabrication and steel service centres. The machines in this range are specifically designed for machining large-volume profiles which can also be mitre-cut.

- ▶ Drive concepts are perfectly designed for machining profiles with large material cross-sections
- ▶ Pivotal saw mounted on guide rails for high-precision mitre cuts
- ▶ Motor-driven, movable roller conveyor automatically removes even short mitre-cut parts

KBS 400 DG | 620 DG | 750 DG | 1010 DG

THE VERSATILE BAND SAW WITH MITRE UNIT FOR STEEL

HTL-OO



1 NC-controlled cutting angle setting. Powerful clamping system to ensure high cutting quality and long saw band life.



2 Independently driven swarf brush cleans the saw band after engagement to reduce cutting times and contamination.



3 Carbide-tipped saw band guides with automatic feed control ensure maximum cutting precision.



4 Laser pointer for manual cutting on scribe mark to ensure simple, reliable material alignment.



Automated sawing of stacks and bundles by infeed gripper (NA) for each greater production efficiency.

TECHNICAL DATA	KBS 400 DG	KBS 620 DG	KBS 750 DG	KBS 1010 DG
Working range max. [mm]				
90 °	400 x 350	620 x 350	750 x 500	1010 x 500
+ 70 °	400 x 350	615 x 350	730 x 500	970 x 500
- 70 °	390 x 350	595 x 350	710 x 500	950 x 500
+ 60 °	380 x 350	570 x 350	670 x 500	895 x 500
- 60 °	355 x 350	540 x 350	650 x 500	870 x 500
+ 45 °	315 x 350	470 x 350	550 x 500	735 x 500
- 45 °	275 x 350	430 x 350	520 x 500	695 x 500
+ 40 °				
- 40 °				
+ 30 °	255 x 350	330 x 350	390 x 500	520 x 500
Working range min. [mm]	10 x 10	10 x 10	10 x 10	45 x 10
Drive power [kW]	3	4.0	5.5	7.5
Cutting speed [m/min]	15 - 90	15 - 90	15 - 100	15 - 120
Saw band feed [mm/min]	0 - 300	0 - 300	0 - 300	0 - 400
Rapid feed and return [mm/min]	2500	2500	2500	2500
Saw band material	Bimetal	Bimetal	Bimetal	Bimetal
Saw band dimensions (L x W x H) [mm]	5370 x 1.1 x 34	6175 x 1.3 x 41	6990 x 1.3 x 41	7470 x 1.3 x 41
Machine weight [kg]	2300	2600	3100	3900
Machine dimensions (L x W x H) [mm]	2710 x 1200 x 2150	3000 x 1160 x 2280	3230 x 1160 x 2420	3610 x 1160 x 2420



"We managed to increase our productivity in a very short space of time with the new sawing and drilling system. By reducing manufacturing times by more than 60% to one third of the previous time, we can now process more orders. As a result, not only have we noticeably reduced costs, we have also optimised our manpower capacity."

Mr Schreiber, plant manager at SFB Schönebecker Fahrzeugbau GmbH

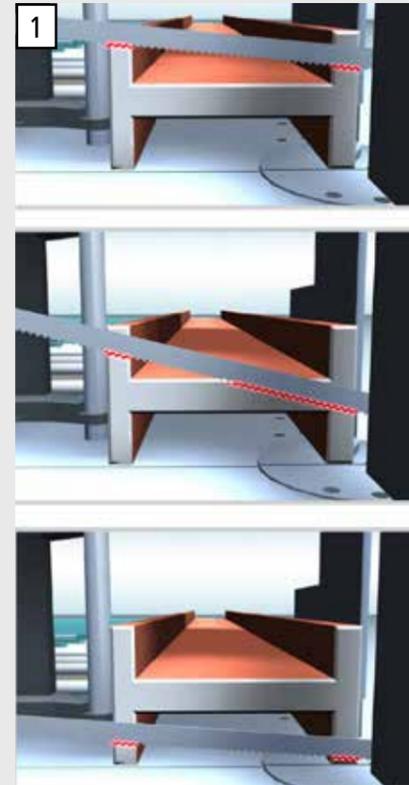


KBS 620 DG at SFB Schönebecker Fahrzeugbau GmbH.

KBS 761 DG | 1051 DG

FOR CUTTING STEEL PROFILES TO THE HIGHEST STANDARDS

H T L - O □



Auto Feed Control automatically adjusts the tilt angle of the saw band to suit the profile to significantly reduce cutting times (up to 50 %).



Saw feed with ball screw and servomotor for constant, temperature-independent feed.



Band position change initiated automatically to minimise idle times.



All maintenance components have been purposefully positioned for ease of access.



Autosorter for fully automated transportation of small good parts to several sorting positions.

TECHNICAL DATA	KBS 761 DG	KBS 1051 DG
Working range max. [mm]		
90 °	750 x 500	1030 x 500
+ 70 °	710 x 500	980 x 500
- 70 °	690 x 500	960 x 500
+ 60 °	650 x 500	900 x 500
- 60 °	620 x 500	880 x 500
+ 45 °	530 x 500	740 x 500
- 45 °	490 x 500	700 x 500
+ 40 °	490 x 500	680 x 500
- 40 °	445 x 500	635 x 500
+ 30 °	380 x 500	525 x 500
Working range min. [mm]	30 x 10	30 x 10
Drive power [kW]	12.9	12.9
Cutting speed [m/min]	15 - 180	15 - 150
Saw band feed [mm/min]	0 - 600	0 - 600
Rapid feed and return [mm/min]	6000	6000
Saw band material	Bimetal and carbide	Bimetal and carbide
Saw band dimensions (L x W x H) [mm]	8320 x 1.6 x 54	8900 x 1.6 x 54
Machine weight [kg]	5500	5800
Machine dimensions (L x W x H) [mm]	4080 x 1434 x 2650	4370 x 1435 x 2650



"We bought our first KALTENBACH machine in 1974 and have been more than happy with it for 40 years. This service life is testament to the high quality of KALTENBACH products and the company's well-trained service technicians. We have no doubt that the KDM 1051 and the KBS 1051 DG will also give us years of sterling service."

Gabriele Faßhauer, managing director of Stahlbau Fasshauer GmbH



KBS 1051 DG at Stahlbau Fasshauer GmbH.

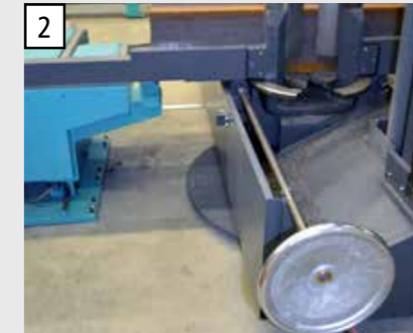
KBS 1301 DG | 2101 DG

FOR CUTTING HEAVY STEEL PROFILES

H T L - O □



1 Double clamping vice securely retains material during cutting process for lower vibrations to prolong band life.



2 Hydraulically raisable supply rollers for removing short dog ends.



3 Sensors detect rotational speed of both saw wheels to avoid slippage.



4 Mitre adjustment without length correction for maximum mitre cutting quality.



5 NC-controlled cutting-angle setting on guide rails enable mitre cuts on very large steel profiles.



Movable roller conveyor automatically transports short parts through the sawing area with mitre settings.

TECHNICAL DATA	KBS 1301 DG	KBS 2101 DG
Working range max. [mm]		
90°	1300 x 700	2100 x 800
+ 70°	1200 x 700	1950 x 800
- 70°	1200 x 700	1950 x 800
+ 60°	1100 x 700	1780 x 800
- 60°	1100 x 700	1780 x 800
+ 45°	850 x 700	1420 x 800
- 45°	850 x 700	1420 x 800
+ 40°	760 x 700	1270 x 800
- 40°	760 x 700	1270 x 800
+ 30°	560 x 700	960 x 800
Working range min. [mm]	50 x 15	80 x 15
Drive power [kW]	9.2	11
Cutting speed [m/min]	15 - 100	15 - 100
Saw band feed [mm/min]	0 - 300	0 - 300
Rapid feed and return [mm/min]	2500	5000
Saw band material	Bi-Metall	Bi-Metall
Saw band dimensions (L x W x H) [mm]	9800 x 1.6 x 67	11640 x 1.6 x 80
Machine weight [kg]	7000	11300
Machine dimensions (L x W x H) [mm]	5010 x 1650 x 3105	6240 x 1680 x 3580



Straight, mitre and multiple cuts with strong precision.



KBS 1301 DG at F. Hackländer GmbH.