

POWERFUL SOLUTIONS –
PASSIONATE PEOPLE



KALTENBACH

**RELIABLE.
FULLY AUTOMATIC.**

**THE KKS SERIES
400 NA | 451 NA | 463 NA**
FULLY-AUTOMATIC UNIVERSAL
MITRING CIRCULAR SAWS

 > MADE IN GERMANY

REQUIREMENTS MAY CHANGE WITH TIME.

BUT REAL QUALITY IS ALWAYS UP-TO-DATE.



125 YEARS. A COMPANY AT HER BEST AGE.

Processing materials, sawing or drilling, welding or burning them, one is not working just for the moment. But rather creating for the future. While processing such durable materials, one is relying preferably on a long-term partnership.

We provide high-quality and powerful machines, which provide you with reliability in production – and, reliable, passionate

people, who will support you with long-term assurance.

Lasting values have a long tradition at KALTENBACH. More than 125 years of experience have shown us: how to find the right solution together with our customers.

In this product folder you will find information regarding the range of applications,

from individual components to technical data and special advantages. Every machine from KALTENBACH comes installed with the expertise, skills and best system consultancy of our staff whether in Sales or Technical Services and Support.

For all questions and in all cases you can rely on the fact: we are there. Wherever you need us.

FULLY-AUTOMATIC UNIVERSAL MITRING CIRCULAR SAWS

For the circular saws of the KKS – NA series, the material feed as well as the positioning to the desired cut length is carried out fully automatically. All automatic circular saws of the KKS series are real universal saws and are designed both for profile and solid materials.

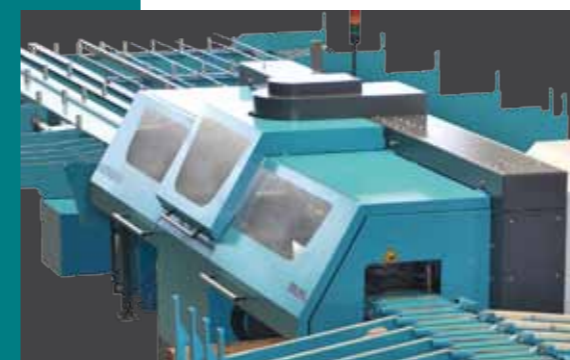
Whether you perform straight or mitre cuts, whether with less staff or unmanned, we have the right machine that will meet your optimum expectations

ADVANTAGES AT A GLANCE

- ▶ Automatic processing of flat, angular and solid material as well as tubes
- ▶ Various automation possibilities up to the fully unmanned sawing cell
- ▶ Easy operation and programming
- ▶ Automatic pre-storage and feed of cutting materials with various feed magazines
- ▶ Space saving installation

CONTENT

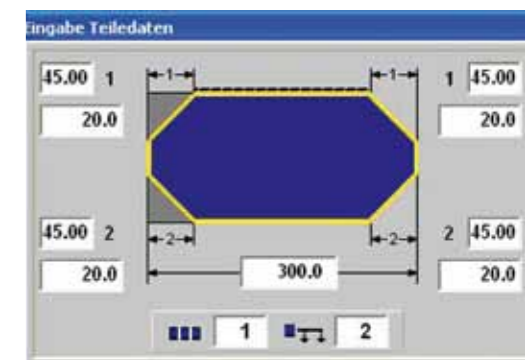
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- 1 KKS 463 NA with feed and removal device
- 2 Automatic cut sort unit KKS 463 NA
- 3 Cut example KKS 463 NA

KKS 400 NA

THE EVOLUTION TO THE AUTOMATIC SAW CUTTING PROCESS



Components manufactured with a KALTENBACH machine.



KKS 400 NA



Material clamping on both side of the saw blade; work piece stop for bilateral mitre cuts.



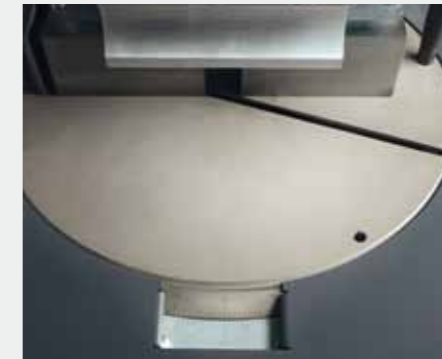
Adjustable work piece stop for 90° cuts and short residual parts lengths in automatic mode.



Automatic material supply via ball screw.



Mechanical cut stop for material identification.



Rotary table for mitre cutting angle; range 180°.



Horizontal clamping device on the removal side for material clamping during sawing.

The **KKS 400 NA** was designed for the automatic processing of flat, angular and solid materials as well as for pipes and special profiles. Various drive variants and magazines for the pre-storage of materials make this machine a real all-rounder. We are looking forward talking to you regarding your specific applications and requirements.

ADVANTAGES AT A GLANCE

- ▶ Automatic material supply via infeed gripper with a single stroke length of 1000 mm and up to 9999 mm in multi-stroke
- ▶ Rotary saw table for mitre cuts, range 180°
- ▶ Easy programming via input panel
- ▶ Roll rail on the removal side for the pushing of cut parts
- ▶ Compact and space saving installation structure



Hydraulic saw blade feed rate, steplessly adjustable.



Easy operation and programming via NC-control with input panel.

KKS 451 NA

CUTTING WITH UNIVERSAL GENIUS



**TOP LEVEL SAWING
PERFORMANCE FOR
CUTTING TECHNIQUES.**

Components manufactured with a KALTENBACH machine.



Highly precise positioning of the cutting material over the supply gripper with screw ball and brush-less servo motor.



Horizontal clamping device on the removal side for material clamping during the saw cut.



Label printer for the labelling of saw cuts.



KKS 451 NA



Adjustable work piece stop for 90° cuts and short residual work piece lengths.



Mechanical cut stop for the material identification.



Easy operation and programming via touchscreen.

KKS 451 NA can be left unattended. The automatic mitre saw for profiles and solid materials executes the tasks by itself. The servo motor and the screw ball assure a highly precise material supply. The optional CNC-controlled rotary table sets the mitring exactly and creates a twometer stroke length in one movement. The cutting speed and the feed rate are calculated automatically.

ADVANTAGES AT A GLANCE

- ▶ Automatic processing of flat, angular and solid materials as well as of tubes and special profiles
- ▶ Automatic material supply via the supply gripper with a single stroke length of 2000 mm and up to 9999 mm in multi stroke
- ▶ CNC-controlled rotary table for mitre cuts, range 120°
- ▶ Graphical operating surface with touchscreen and PROFICUT Software
- ▶ Automatic calculation of the cutting speed and of the saw feed rate
- ▶ Removal roll rail to push the cut parts
- ▶ Flexible material feed from the left, or optionally from the right side
- ▶ Vertical drill axis for an automatic drill-/saw operation

APPLICATIONS

- ▶ Metal fabrication
- ▶ Stair construction
- ▶ Machine construction
- ▶ Transport and storage systems
- ▶ Vehicle construction
- ▶ Supplier industry
- ▶ We are looking forward talking to you regarding your specific applications and requirements.



Saw cut material bar.

KKS 463 NA

UNIVERSAL UNATTENDED MANUFACTURING



**HIGHEST DEMANDS
FULFILLED SAFELY**

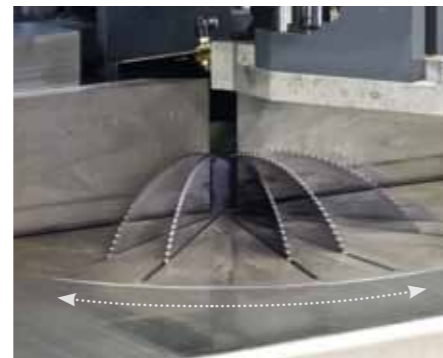
Components manufactured with a KALTENBACH machine.



Swiveling vertical clamping device for mitre cuts for optimal material clamping and shortest remnant parts length (< 15 mm).



Laser light barrier for the cut identification.



CNC-controlled rotary table for mitre cuts.



KKS 463 NA



Saw cut material bar.



Offcut gripper for cut piece clamping during the saw cut, as well as for the sorting of offcuts/residual parts and good parts to pre-adjustable positions.

ADVANTAGES AT A GLANCE

- ▶ Automatic processing of profile and solid materials as well as of tubes
- ▶ Automatic material supply via infeed gripper and measuring offcut gripper, single stroke length 1500mm and 9999mm in multi-stroke
- ▶ CNC-controlled rotary table for mitre cuts, range 120°
- ▶ Graphical operating surface with touchscreen and PROFICUT Software
- ▶ Automatic calculation of the cutting speed and of the saw feed rate
- ▶ Automatic cut sorting to pre-adjustable positions
- ▶ Multiple cuts on the front and back side
- ▶ Flexible material feed from the left and optionally from the right
- ▶ Long stroke clamping cylinder and therefore omission of set-up times
- ▶ Vertical drill axis for an automatic drill-/saw operation
- ▶ Continuous one-part machine case in welded execution



Free standing control panel for the ergonomic set-up in front of the machine.



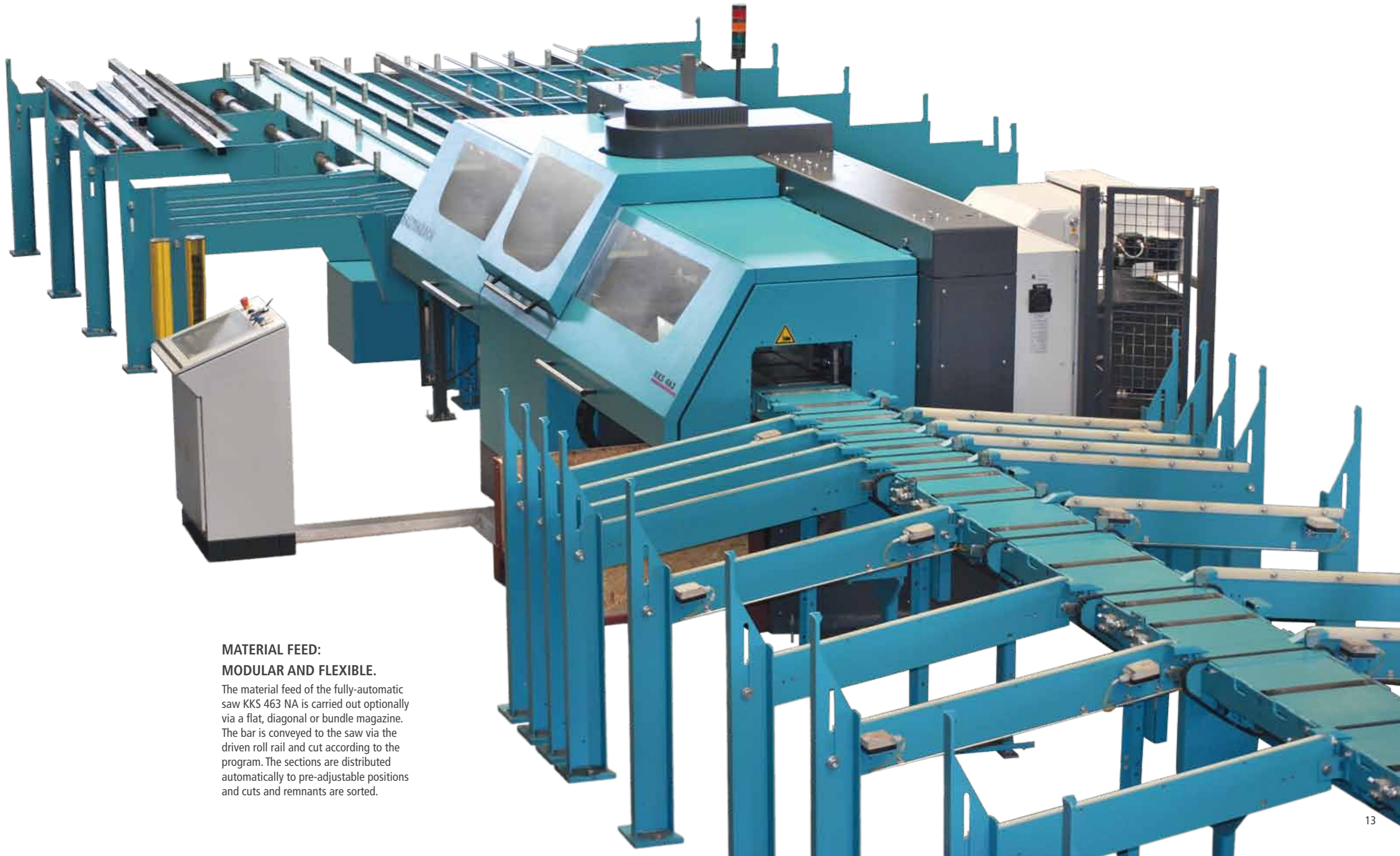
Integrated brush system for the removal of swarf, first cuts/residuals and gussets.



Highly precise positioning of the material via ball screw with brush-less servo motors. Guiding of the supply carriage on robust, maintenance free linear bearings.

KKS 463 NA

WITH INFEED AND REMOVAL



MATERIAL FEED: MODULAR AND FLEXIBLE.

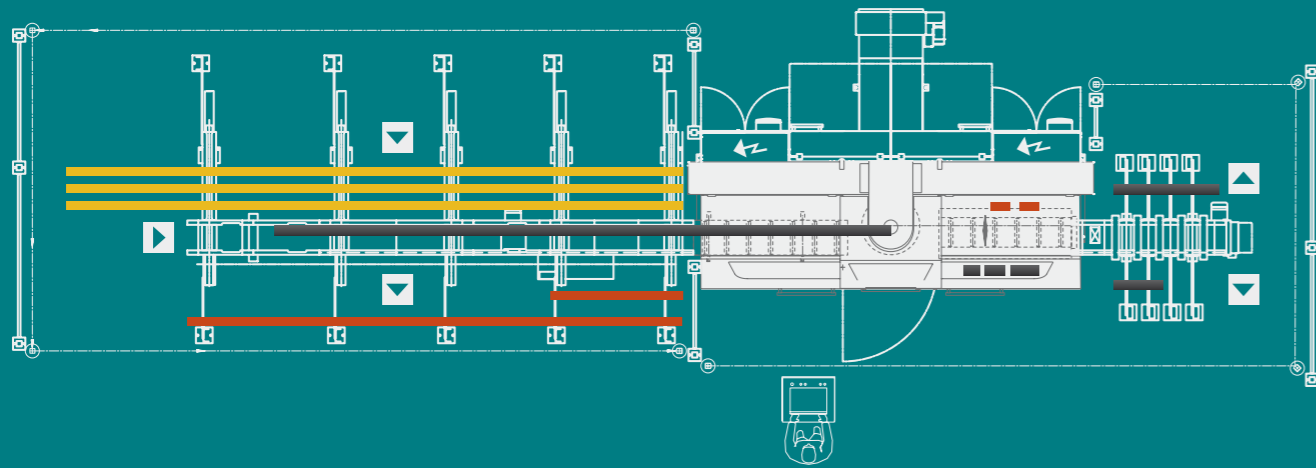
The material feed of the fully-automatic saw KKS 463 NA is carried out optionally via a flat, diagonal or bundle magazine. The bar is conveyed to the saw via the driven roll rail and cut according to the program. The sections are distributed automatically to pre-adjustable positions and cuts and remnants are sorted.

FEED VARIANTS

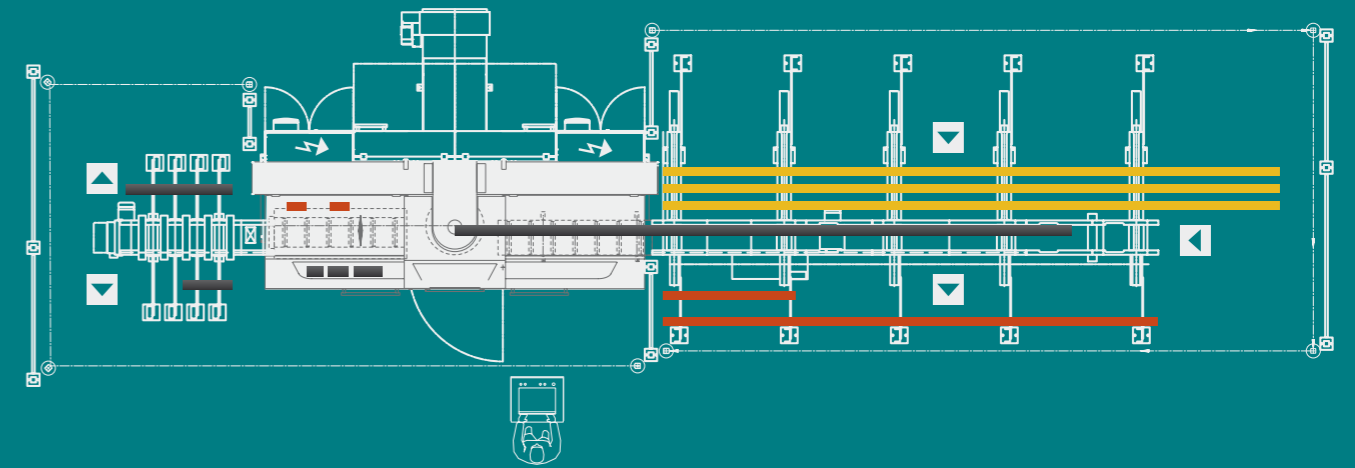
KKS 463 NA

- Material to be cut
- Bar in processing/Good Parts
- Remnant pieces

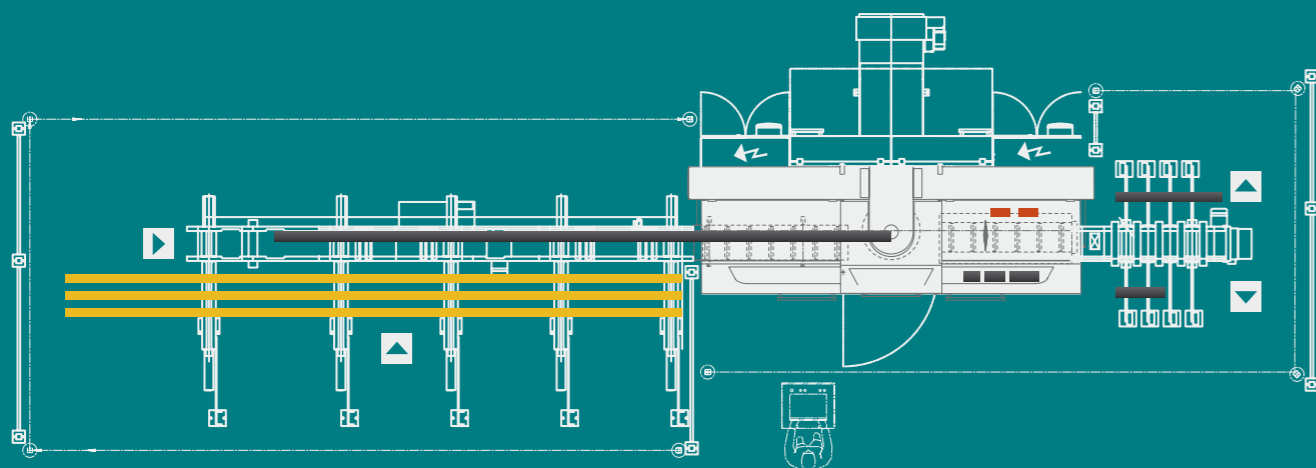
Material feed from the back side left



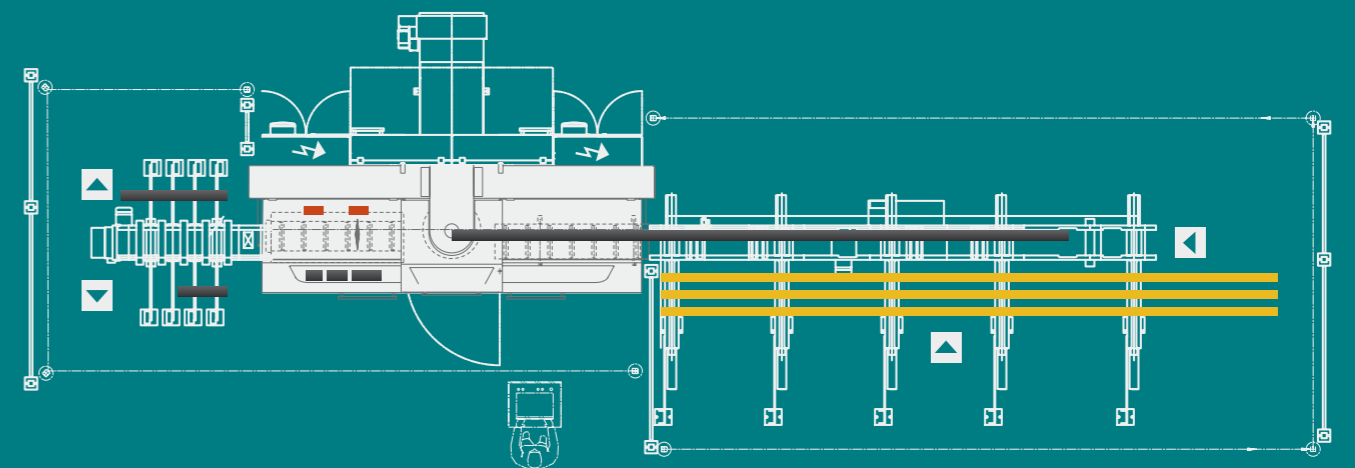
Material feed from the back side right



Material feed from the front side left



Material feed from the front side right



OPTIONAL REMOVAL UNITS

KKS 463 NA



1 Tipping roll rail
Sections can be adjusted flexibly to various positions via „teach in“.



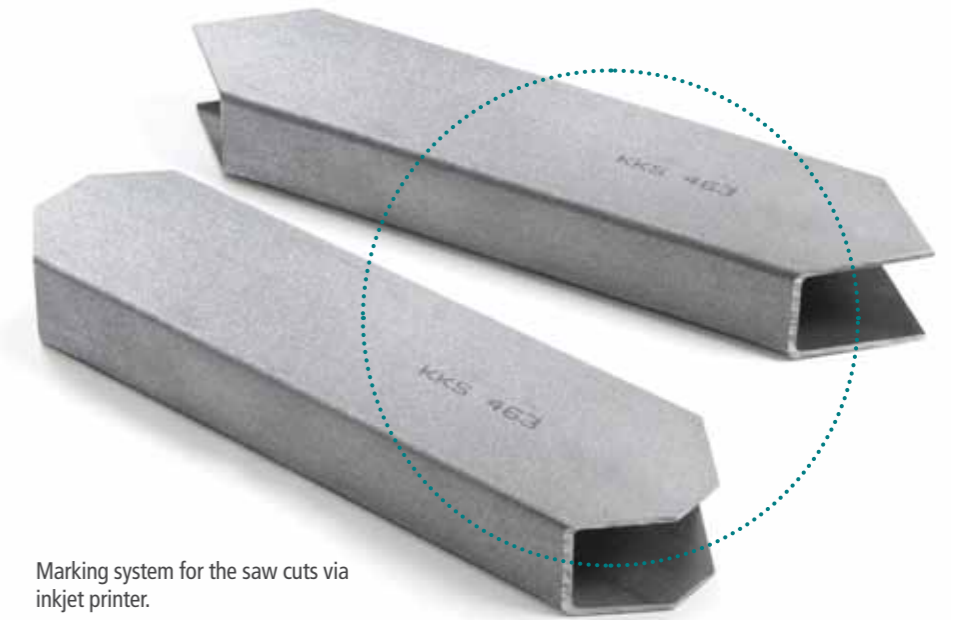
2 Automatic lowering bell troughs for the support of sections.



3 Section cross distributor with cross beating chains for automatic sorting of cuts forwards and backwards.

ACCESSORIES

KKS 463 NA



Marking system for the saw cuts via inkjet printer.



Coolant atomizer system.



Material width measuring with automatic length correction for precise mitre cuts.

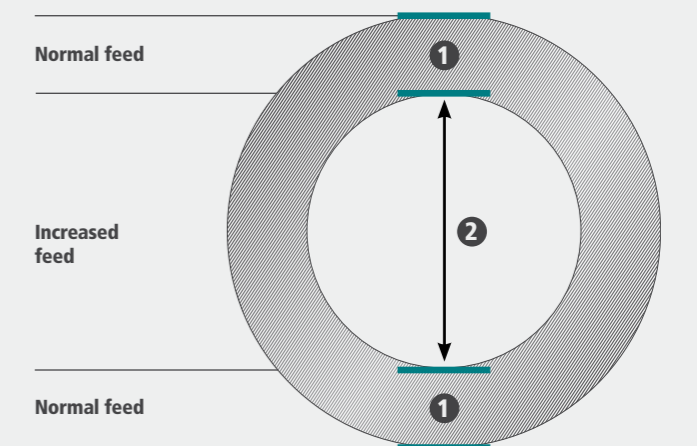


Slat-band chain conveyor for the automatic removal of swarf, cuts/remnants and gussets.



Automatic program controlled clamping pressure reduction via proportional valves for the processing of thin wall tubes and special profiles.

Dynamic feed regulation for the reduction of cutting times.



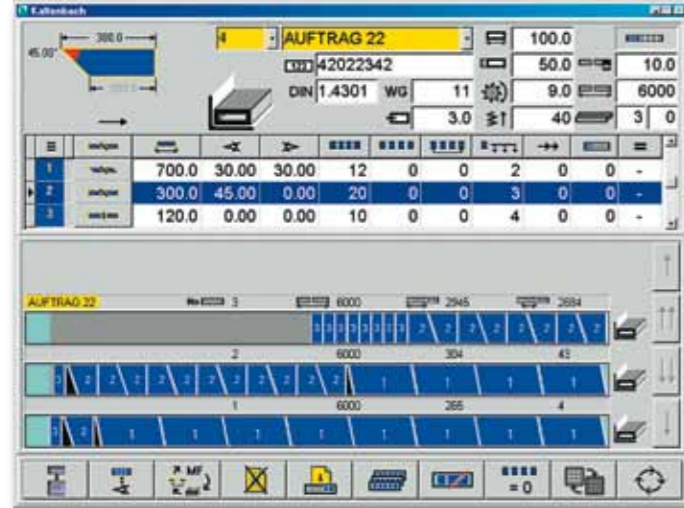
1 Normal feed **2** Increased feed

PROFICUT – SOFTWARE FOR PROFIS

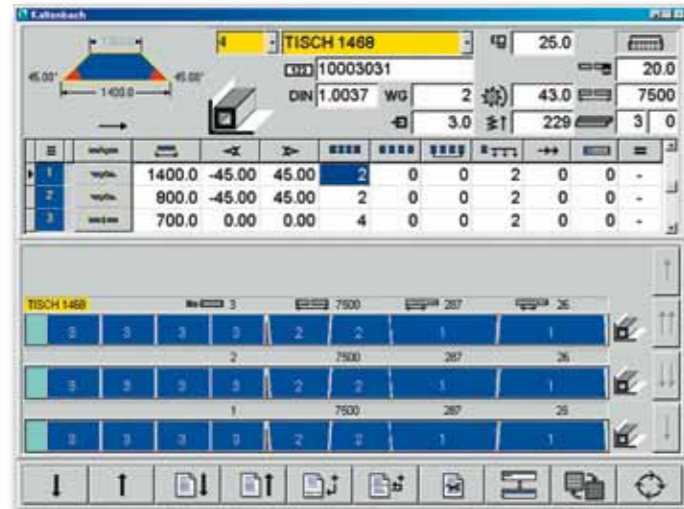
KKS 451 NA | KKS 463 NA

Bar optimization for optimal use of the raw material

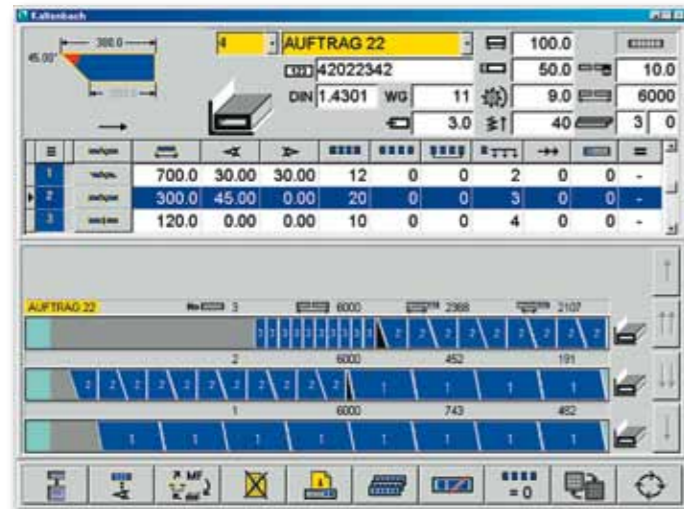
Selection of the processing type:



▶ work piece oriented

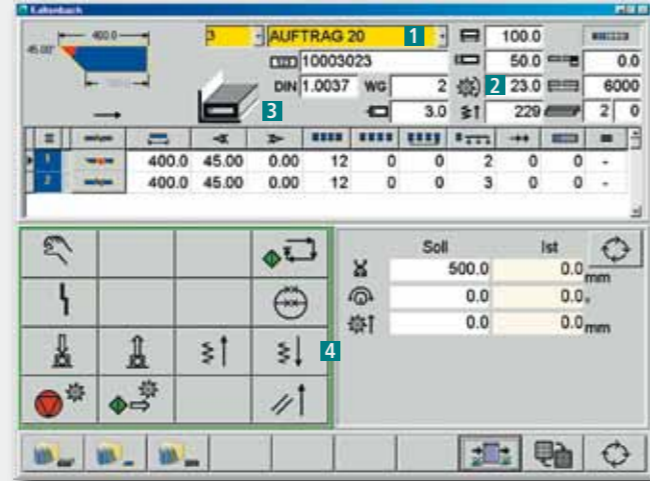


▶ filling oriented

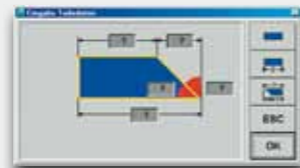


▶ bar oriented

▶ The whole control and programming of KKS 451 NA/KKS 463 NA is carried out via touchscreen over the graphic operating surface PROFICUT under Windows. A connection to the network is possible.



- 1 Storage possibility for as many sawing orders as desired
- 2 Automatic calculation of cutting speed and feed over the material group or DIN-Nr. (steel key).
- 3 Graphical representation of the material
- 4 Machine operation



Adjustment of the work piece input according to the available dimensions



Selection of pre-programmed material shapes

CUSTOMER LEVEL

- ▶ Customer software that can export CAD files in DSTV format or CSV format (Excel)
- ▶ PROFICUT additional license (optional) for the registration of the sawing orders in the office PC

Data transfer via network or data medium.

Machine PC with graphic touch screen operating panel under Windows. Software; PROFICUT for the reading in of CAD data, resp. of the data from the PROFICUT office license and for the direct data input into the machine.

MACHINE CONTROL LEVEL

Input functions:

- ▶ As many sawing orders as needed
- ▶ Multi-Tasking operation
- ▶ Input of parts dimensions on the graphically represented part

Visualization:

- ▶ Machine operating keys
- ▶ Graphical representation of the cross cut
- ▶ Graphical representation of parts shapes
- ▶ Preliminary calculation and graphical representation of the table assignment
- ▶ Process visualization
- ▶ Automatic calculation of the optional cutting and feed speed

Material database:

- ▶ Storage of material data under a freely selectable material identification number

Parts database:

- ▶ Storage of saw parts under a freely selectable parts identification number

Remote diagnosis:

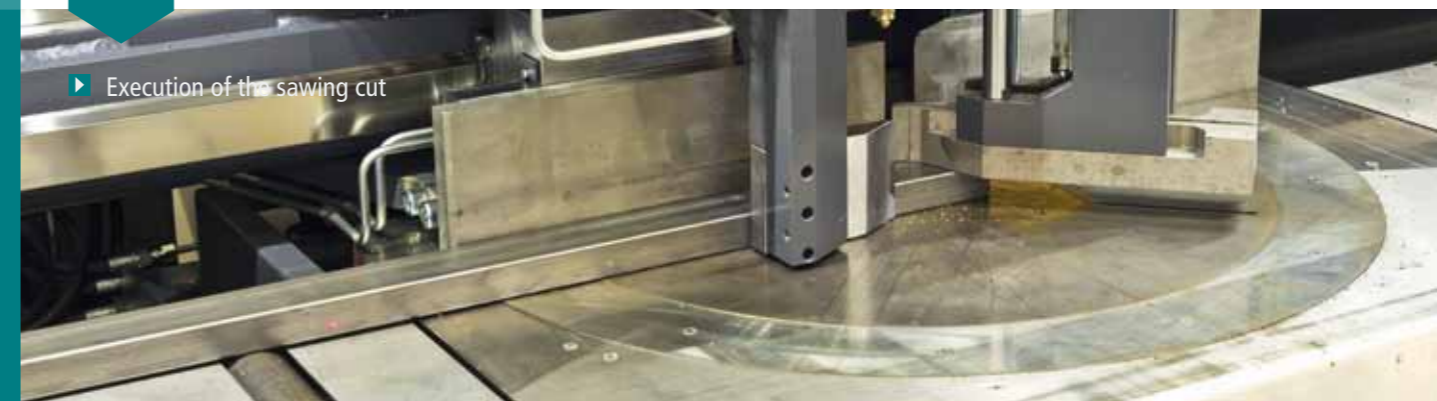
- ▶ Via telephone line or internet (Team Viewer)

Orders management:

- ▶ Programming/management of sawing orders under an order number
- ▶ Input/processing of various materials under one order
- ▶ Input/processing of various material lengths

MACHINE LEVEL

▶ Execution of the sawing cut



MATERIAL FEED

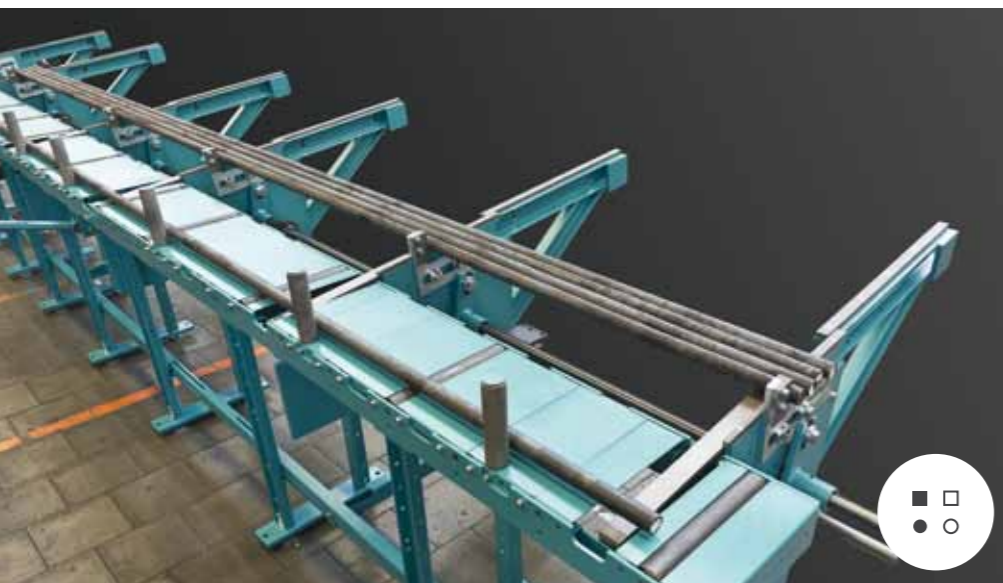
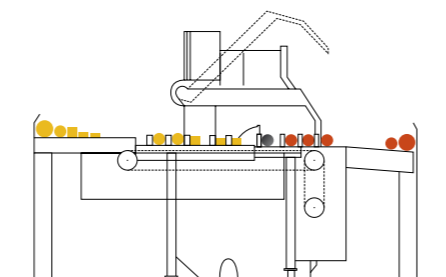
KKS 400 NA | KKS 451 NA | KKS 463 NA



- Material to be cut
- Bar in processing
- Remnant pieces

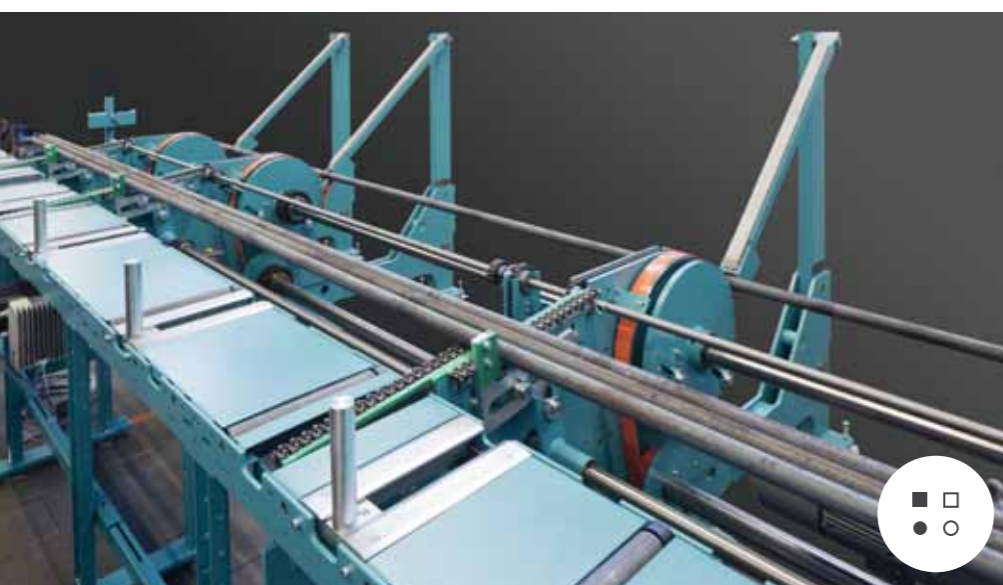
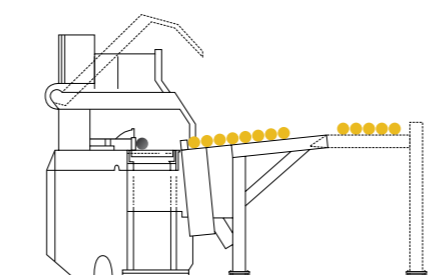
FLAT MAGAZINE FM 1

For the pre-storage of round and square material as well as profiles (also special profiles).



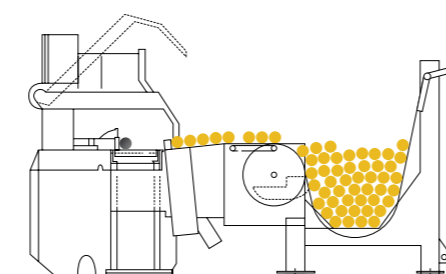
DIAGONAL MAGAZINE LM 1

For the pre-storage of round and square material.



BUNDLE MAGAZINE VM

For the pre-storage of round and square material.



KKS SERIES AT A GLANCE

HARD FACTS	KKS 400 NA	KKS 451 NA	KKS 463 NA
Saw blade Ø	400 mm	450 mm	460 mm
Drive performance			
– standard	1,8/2,7 kW	1,8/2,7 kW	5,2 or 9,5 kW
– optional	3,7/4,7 kW		
– optional frequency-c.	4 kW	4 bzw. 5,5 kW	
Conveying hydraulic performance	25 l/min	25 l/min	25 l/min
Cutting speed			
– standard	10/20 m/min 13/26 m/min 15/30 m/min 30/60 m/min	10/20 m/min 13/26 m/min 15/30 m/min	7 – 60 or 15 – 120 m/min
– optional			
– optional frequency-c.	7 – 43 or 20 – 95 m/min	7 – 43 or 15 – 75 m/min	
Stroke length supply automate			
– single stroke	1.000 mm	2.000 mm	3.000 mm (with interruption)
– multi stroke	9.999 mm	9.999 mm	9.999 mm
Saw blade feed rate			
– steplessly adjustable	0–1.000 mm/min	0–1.000 mm/min	0–1.000 mm/min
– fast return stroke	3.300 mm/min	3.500 mm/min	3.500 mm/min
Dimensions			
– length	2.340 mm	3.300 mm	4.610 mm
– width	1.300 mm	1.420 mm	1.940 mm
– height	1.805 mm	2.100 mm	2.055 mm
Weight	1.700 kg	2.120 kg	4.900 kg
Working height	1.040 mm	1.040 mm	1.040 mm
Swivel range for mitre cuts	180°	120°	120°
Working range			
● ○ (round) 90°	130 mm	150 mm	153 mm
● ○ (round) 45°	130 mm	150 mm	145 mm
■ □ (square) 90°	120 mm	140 mm	140 mm
■ □ (square) 45°	110 mm	130 mm	125 mm
■ □ (flat) 90°	305 x 20 mm	240 x 80 mm	250 x 75 mm
■ □ (flat) 45°	245 x 30 mm	185 x 60 mm	180 x 70 mm

FEATURES	KKS 400 NA	KKS 451 NA	KKS 463 NA
Material feed from the right side	–	○	○
Hydraulic horizontal clamping device removal side	○	●	–
Dynamic saw blade feed	–	○	○
Minimal lubrication	○	○	○
Coolant atomizer system	●	●	●
CNC-controlled cut angle setting	–	○	●
Label printer for cut labelling	–	○	○
Inkjet printer for cut marking	–	–	○
Graphical touchscreen operating surface	–	●	●
Cut stop	○	○	○
Multiple front and rear cuts	–	–	○
Automatic material width measuring	–	–	○
Manual pressure reduction	●	●	●
Automatic tension pressure reduction	–	–	○
Swarf conveyor	○	○	○
Slat-band chain conveyor f. cuts/residuals/gussets	–	–	○
Automatic cut sorting unit ABG	–	–	●
Cut cross distribution ABQ	–	–	○
Tipping roll rail for long saw cuts	–	–	○
Vertical drilling axis	–	○	○
Feed magazines	●	●	●

● = standard ○ = optional – = not applicable

KALTENBACH TECHNICAL SERVICES

SERVICE YOU CAN RELY ON.



KALTENBACH and KALTENBACH partners offer help and advice, 365 days a year and all around the globe. Whether you want to buy machines or parts, whether you need tools, equipment or maintenance – we'll be there for you.

We are aiming at offering the best possible service by thinking, feeling and acting like you. And you can help us making our service even better.

Please talk to us, whatever you need.

▶ feedback@kaltenbach.de



▶ Spare Parts – Original Quality

OUR SPECIALISTS RESPOND, IDENTIFY AND ACT – AS SPEED IS OF THE ESSENCE.

ONLY THE BEST – ONLY ORIGINALS.

KALTENBACH and KALTENBACH partners offer you experience and knowledge. They understand your business and offer you all the products you need for safe operation: the right spare parts, the right tools, the right coolants.

After our field service or help desk will determine the best solution for you, our spare parts specialists will take care of rapid delivery. We understand that in production, time is money – that's why our original parts service will help you save both.

Want to help us get even better?

Talk to us here:

feedback@kaltenbach.de

▶ Field Service

SAVING TIME AND REDUCING COSTS ARE THE HIGHEST PRIORITIES IN PRODUCTION. WITH US, YOU'LL ACHIEVE BOTH OF THEM.

WE THINK ABOUT YOU, EVEN IF WE'RE NOT WITH YOU.

Knowledge, experience and passion to support our customers makes our service powerful. Dedicated people, close to you with empathy ability in your work so you move forward.

If necessary, our field service engineers will be at your site in short time. Highly qualified, they identify and act to find the best possible solution together with you. Service, maintenance and aftersales advice complete the package for you – service you can rely on.

▶ Competence Centre

HOW CAN WE HELP YOU? WITH OUR PASSION FOR FINDING SOLUTIONS.

▶ HELP DESK – WE ARE ALWAYS STANDING BY.

Helping you as quickly as possible is the number one priority of our help desk. Providing professional support worldwide, our qualified customer service team is there to support and assist you with any machine issues and technical queries.

While our experience shows that 90 % of all service enquiries can be resolved over the phone or via on-line support, we are happy to arrange an engineers visit to your site, whenever the need arises.

▶ KALTENBACH ACADEMY

Nothing feels as good as getting better.

We support you in improving and updating your knowledge of the machines to maximise your performance. In the KALTENBACH Academy, our seasoned professionals offer you Customer Training and Consultancy, specifically configured and prepared to suit your industry and application.

WE PROVIDE:

- ▶ a highly efficient logistics network in over 40 countries
- ▶ original spare parts directly from the manufacturer
- ▶ market oriented prices
- ▶ professional advice geared to your specific needs
- ▶ coordination of rapid delivery to your location
- ▶ consultation regarding preventive maintenance

80 PROFESSIONALS WORLDWIDE TAKE CARE OF:

- ▶ individual, tailored contract terms and maintenance schemes
- ▶ troubleshooting
- ▶ service
- ▶ updates
- ▶ machine relocations
- ▶ machine changes / upgrades

15 SERVICE TEAM MEMBERS WILL:

- ▶ provide you with technical support in case of machine disruptions with the goal of minimising machine downtime
- ▶ provide you with first-time fix or initiate on site assistance
- ▶ be responsible for keeping you updated about the problem solving processes

4 EXPERTS PROVIDE YOU WITH:

- ▶ product training/instructions
- ▶ safety training
- ▶ preventive maintenance training
- ▶ maintenance instructions
- ▶ internal partner audits
- ▶ consultancy (machine operating efficiency, logistics, tools and consumables)

KALTENBACH IS FINDING THE RIGHT SOLUTION. MAYBE IT IS ALREADY THERE.

Big and diverse challenges are waiting in the metal and processing industries. To meet them, one needs systems which are powerful, highly versatile and perform efficiently in the long term. Our machines are guaranteeing the right solution for any requirement – safe effective and reliable:

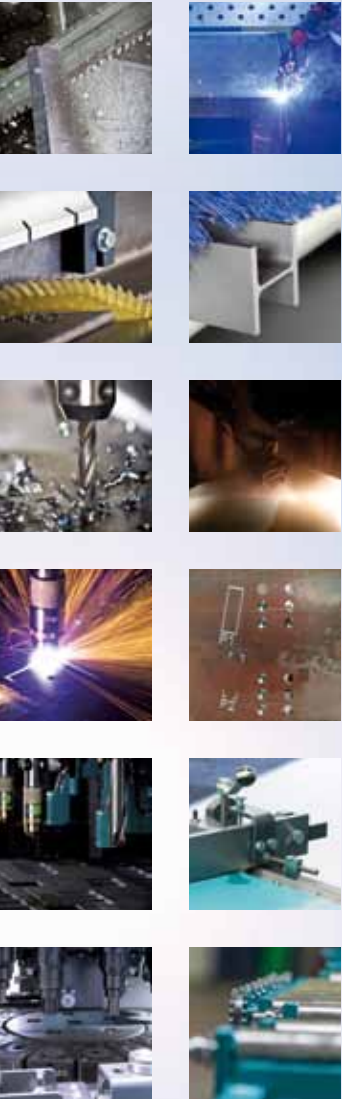
- ▶ BAND AND CIRCULAR SAWING MACHINES
- ▶ DRILL-SAW-LINES
- ▶ PROFILE DRILLING MACHINES
- ▶ PROFILE PROCESSING ROBOTS
- ▶ DRILL-BURN-LINES
- ▶ PUNCHING AND SHEARING SYSTEMS
- ▶ WELDING ROBOTS
- ▶ SHOTBLAST SYSTEMS
- ▶ PAINTING SYSTEMS
- ▶ MARKING SYSTEMS
- ▶ MEASURING SYSTEMS
- ▶ TRANSPORT SYSTEMS

For further information and our foreign affiliates please visit:

WWW.KALTENBACH.COM

Product videos:

WWW.YOUTUBE.COM/KALTENBACHGROUP



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