

POWERFUL SOLUTIONS –
PASSIONATE PEOPLE

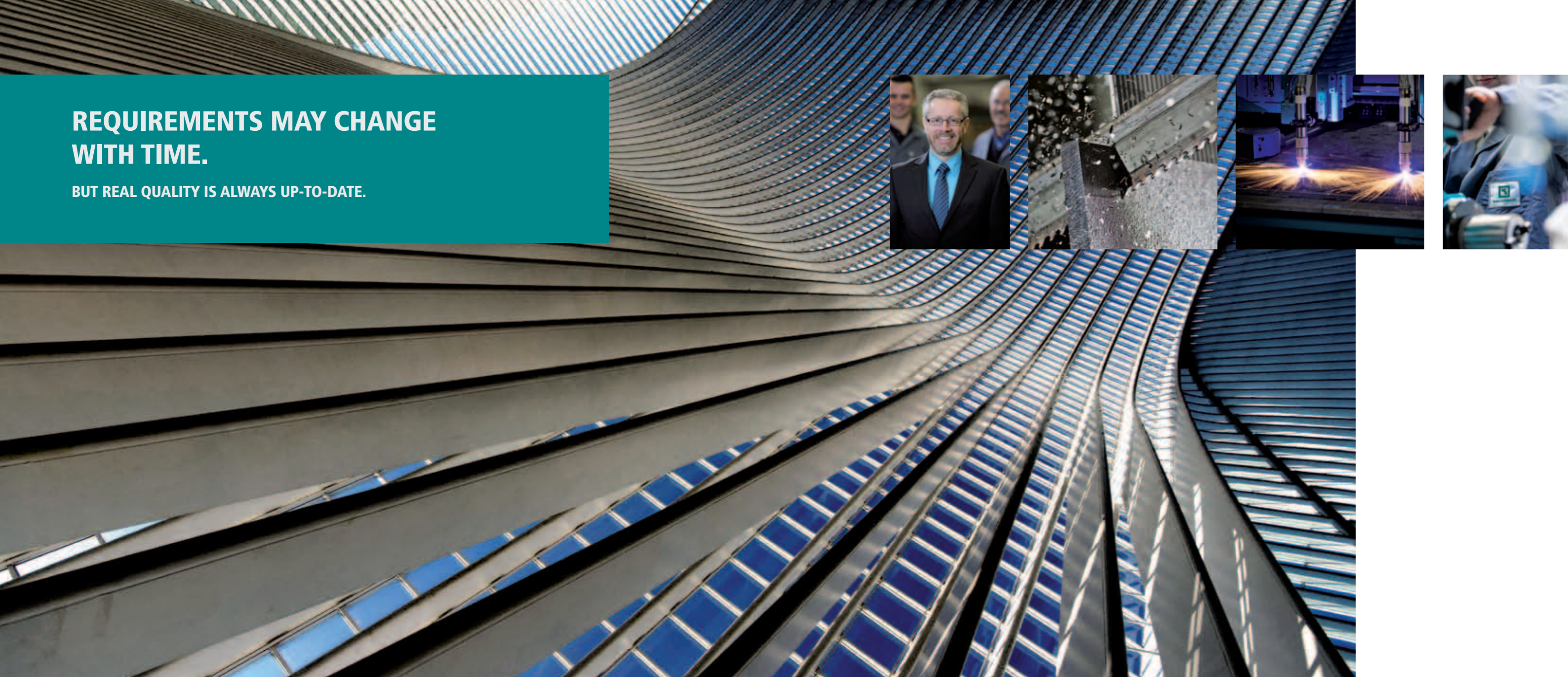


KALTENBACH

THE RELIABLE ALLROUNDERS.

THE KKS SERIES
SEMI-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 After Sales and Support.

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

SEMI-AUTOMATIC UNIVERSAL MITRING CIRCULAR SAWS

The experience, expertise and innovation of KALTENBACH are making the KKS series the reliable allrounders.

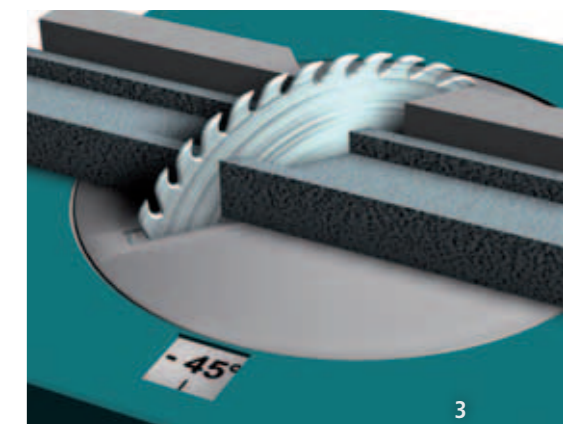
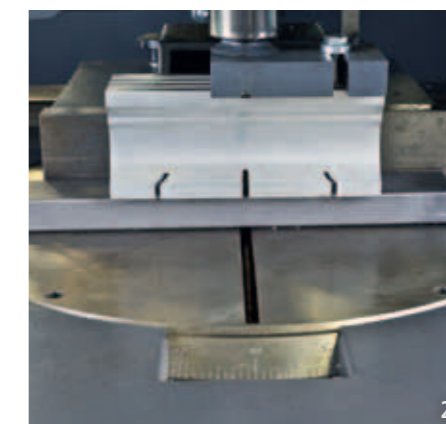
All machines of the KKS series are original universal mitring circular saws. Thus, solid materials can be sawn with the same performance as tubes and profiles.

ADVANTAGES AT A GLANCE

- ▶ Clamping, sawing, reverse motion, opening – at the touch of a button
- ▶ Suitable for single cuts and the processing of batches
- ▶ Push-button adjustment of the cutting height
- ▶ User-friendly electronic control directly on the machine
- ▶ Good accessibility for saw blade changes and maintenance work
- ▶ Space saving installation
- ▶ Work piece stop and clamping on both sides of the saw blade (stable contact surface for precise cuts)
- ▶ Suitable for nearly all types of profiles and solid materials as well as differing steel grades

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- 1 Heavy duty gear box with hardened and ground, helical gears
- 2 Material clamping on both sides of the saw blade
- 3 Rotary table for mitre cuts, swivel range 180°

KKS 400 E | KKS 450 E

CLAMPING, SAWING, REVERSE MOTION, OPENING – AT THE TOUCH OF A BUTTON.



**ABSOLUTE VERSATILITY
WITH A POWERFUL APPEARANCE.**



KKS 400 E



Horizontal clamping device on the right and/or left of the saw blade.



Coolant atomizer system.



Big front door for good accessibility for saw blade changes and disposal of swarf.



Easy and fast operation via push-button.



Hydraulic saw blade feed rate. Infinitely adjustable via table.



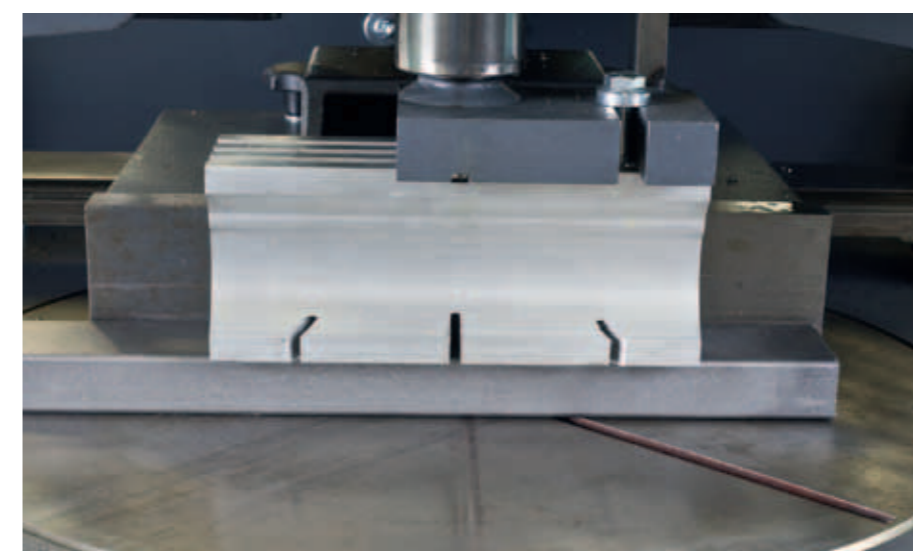
Short-stroke clamping cylinder with hand crank for pre-adjustment.

The models **KKS 400 E** and **KKS 450 E** are representing semi-automatic universal mitre circular saws, which are especially suitable for single cuts and processing of small batches.

The table can be rotated to any desired angle between $\pm 90^\circ$ for mitre cuts.

ADVANTAGES AT A GLANCE

- ▶ Saw blade \varnothing 400/450 mm
- ▶ Mitre adjustment ± 90 degrees
- ▶ Clamping, sawing, reverse motion, opening – at the touch of a button
- ▶ Push-button adjustment of the cutting height
- ▶ User-friendly electronic control directly on the machine
- ▶ Space saving installation



Workpiece stop and material clamping on both sides on the sawblade.



**RESPONSIVE OPERATION –
 TARGETED PERFORMANCE**



KKS 450 H



Horizontal clamping device on the right and/or left of the saw blade.



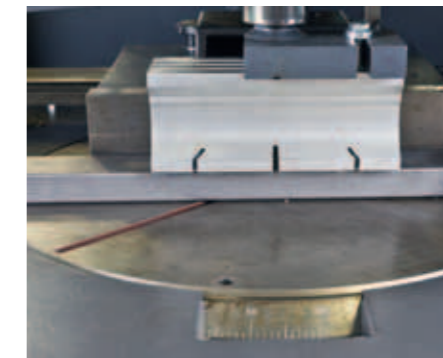
Coolant atomizer system.



Big front door for good accessibility for saw blade changes and disposal of swarf.



Work piece stop and clamping on both sides of the saw blade.



CNC-controlled cutting angle setting.



Input and diagnostic panel for the operating and programming.

The higher output of the hydraulic unit and the long stroke clamping device of the universal mitre circular saws **KKS 400 H** and **KKS 450 H** improve handling and flexibility.

DIFFERENCES IN THE SERIES KKS 400 E | 450 E

- ▶ No manual pre-adjustment of the vertical clamping device thanks to the long stroke clamping cylinder – thus, faster set-up for varying material sizes
- ▶ Faster saw blade return stroke due to the improved output capacity of the hydraulic unit – thus, a reduction of the cycle times can be achieved
- ▶ CNC-controlled cutting angle setting (optional, only KKS 450 H)
- ▶ Optionally available frequency controlled saw drive unit – thus, increase in the flexibility and performance of the saw with diverse steel qualities and profile types
- ▶ Input panel for saw operation
- ▶ Automatic sawing operations in combination with the material feeding gripper M 45 NC (page 12)

**FASTER, MORE PRECISE AND PRODUCTIVE –
 THE DOUBLE CIRCULAR SAW KKS 400 DH**

- ▶ The double circular saw **KKS 400 DH** consists of two KKS 400 H machines with travelling frame and central control system.
- ▶ One machine can be positioned for the adjustment of the desired off-cut length.
- ▶ The operation of both machines is controlled centrally via foot switch. At any time both of the machines can also be operated separately. Additionally on one of the machines a length measuring device can be fitted.

KKS 400 T

THE SPECIALIST FOR JIG WORK.

STEPLESSLY VARIABLE.
ALWAYS AT YOUR SIDE.



KKS 450 R

DYNAMIC MASTERING OF JIG WORK.

WORK FLEXIBLY.
SAW SAFELY.



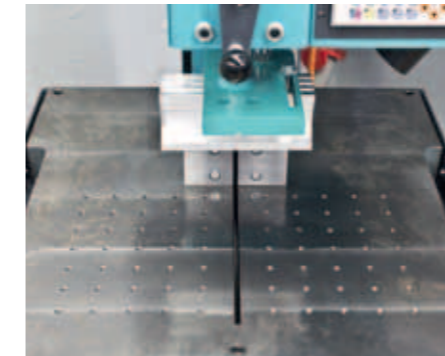
Two-handed operation instead of protection cover.



Drilling pattern in the saw table to enter fixtures of the customer's own design.



Input and diagnostic panel for operating and programming.



Drilling pattern in the saw table to enter fixtures of the customer's own design.



Big front door for good accessibility for saw blade changes and disposal of swarf.



Dynamic feed control (optional).

The **KKS 400 T** has been developed for the special requirements of jig work, for example in the exhaust pipe industry or hydroforming. The table can be swivelled manually between +/- 90°.

ADVANTAGES AT A GLANCE

- ▶ Free saw table with tapped holes to enter customer specific clamping devices
- ▶ Electronic cut stroke limitation for a reduction in cycle times
- ▶ Reinforced drive motor for high cutting performances
- ▶ Optional, dynamic feed control via proportional valve and frequency-controlled saw drive (3 feed control speeds according to cut heights) to reduce the cutting time of the material
- ▶ Reinforced clamping arm with hydraulic long stroke clamping cylinder to minimise the adjustment times when changing material size
- ▶ Saw blade Ø 400 mm
- ▶ Minimal lubrication for nearly dry saw cuts

The **KKS 450 R** is the specialist for straight cuts of bent pipes, for example in the exhaust pipe industry or hydroforming. The saw blade diameter of 450 mm ensures a large cutting area.

ADVANTAGES AT A GLANCE

- ▶ Free saw table with tapped holes to enter customer specific clamping devices
- ▶ Electronic cut stroke limitation for a reduction in cycle times
- ▶ Optional, dynamic feed control via proportional valve and frequency-controlled saw drive (3 feed control speeds according to cut heights) to reduce the cutting time of the material
- ▶ Reinforced clamping arm with hydraulic long stroke clamping cylinder to minimise the adjustment times when changing material size
- ▶ Forklift pockets to enable fast transportation between locations
- ▶ Saw blade Ø 450 mm
- ▶ Minimal lubrication for nearly dry saw cuts
- ▶ Saw blade feed up to 1.200 mm/min

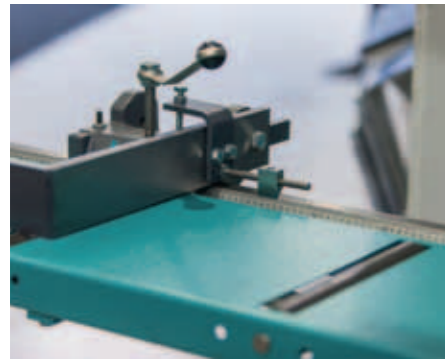
TRANSPORTING AND MEASURING

MANUAL AND NC-CONTROLLED LENGTH MEASURING DEVICE WITH ROLLER CONVEYOR

The highly developed KALTENBACH modular system offers the opportunity to adjust the machine to the customer specific requirements. Roller conveyors are available in various lengths.



Universal mitre circular saw with length measurement system L 41 NC and T3 infeed conveyor system.



Length measurement device L 45 E

For the manual adjustment of the measuring length. High degree of accuracy due to adjustment via Vernier scale. Short measuring lengths via the attachable stop tongue. Manually raised stop arm.



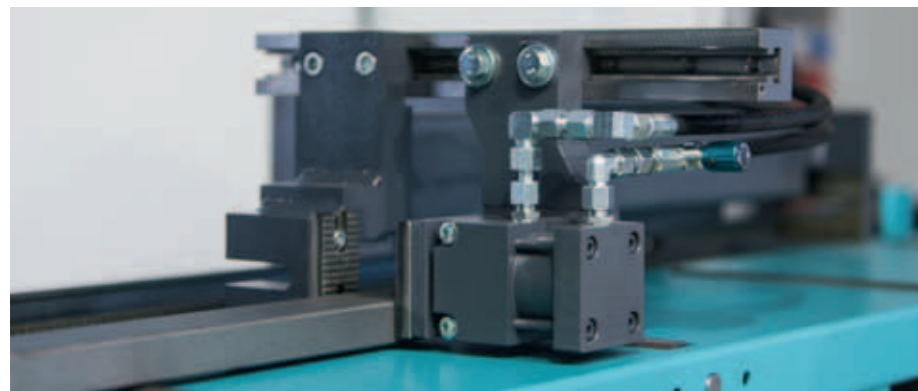
Length measurement device L 45 I

The adjustment of the stop is controlled via hand crank and hydraulically clamped via the manual valve on the L 45 I. The digital display registers the position.



Length measurement device L 41 NC

For the electronic adjustment of the measuring length via NC-control. The feed gripper is clamped automatically after the positioning. Easy operation via touch screen.



Infeed measuring device M 45 NC for the automatic material feed (KKS 400H/KKS 450 H). Alternatively used as a NC-controlled length stop. The M 45 NC clamps the material at the bar end and is driven forward automatically according to the programmed length.

KKS SERIES AT A GLANCE

HARD FACTS	KKS 400 E	KKS 450 E	KKS 400 H	KKS 450 H	KKS 400 T	KKS 450 R	KKS 400 DH
Saw blade Ø	400 mm	450 mm	400 mm	450 mm	400 mm	450 mm	400 mm
Drive performance							
– standard	1,8/2,7 kW	1,8/2,7 kW	1,8/2,7 kW	1,8/2,7 kW	3,7/4,7 kW	1,8/2,7 kW	1,8/2,7 kW
– optional			3,7/4,5 kW	3,7/4,5 kW		3,7/4,5 kW	3,7/4,5 kW
– optional frequency-c.			4,0 kW	4,0 bzw. 5,5 kW	4,0 kW	4,0 bzw. 5,5 kW	4,0 kW
Hydraulic performance	6 l/min	6 l/min	25 l/min	25 l/min	25 l/min	25 l/min	25 l/min
Cutting speed							
– standard	10/20 m/min 13/26 m/min 15/30 m/min	10/20 m/min 13/26 m/min 15/30 m/min	10/20 m/min 13/26 m/min 15/30 m/min	10/20 m/min 13/26 m/min 15/30 m/min	30/60 m/min	15/30 m/min	10/20 m/min 13/26 m/min 15/30 m/min
– optional	–	–	30/60 m/min	35/70 m/min		35/70 m/min	30/60 m/min
– optional frequency-c.	–	–	7-43 or 20-95 m/min	7-43 or 15-75 m/min	7-43 or 15-75 m/min	7-43 or 15-75 m/min	7-43 or 20-95 m/min
Saw blade feed rate							
– steplessly adjustable	0-1.000 mm/min	0-1.000 mm/min	0-1.000 mm/min	0-1.000 mm/min	0-1.000 mm/min	0-1.200 mm/min	0-1.000 mm/min
– fast return stroke	1.550 mm/min	1.600 mm/min	3.300 mm/min	3.300 mm/min	3.300 mm/min	3.300 mm/min	3.300 mm/min
Dimensions							
– length	1.050 mm	1.115 mm	1.050 mm	1.305 mm	1.050 mm	1.260 mm	3.000 mm
– width	900 mm	1.020 mm	900 mm	1.020 mm	900 mm	900 mm	900 mm
– height	1.840 mm	2.000 mm	1.840 mm	2.000 mm	1.840 mm	1.920 mm	1.840 mm
Weight	820 kg	950 kg	850 kg	1.050 kg	850 kg	1.150 kg	1.700 kg
Working height	1.010 mm	1.010 mm	1.010 mm	1.010 mm	1.010 mm	1.050 mm	1.010 mm
Swivel range for mitre cuts	180°	180°	180°	180°	180°	–	180°
Working range							
●○ (round) 90°	130 mm	150 mm	130 mm	150 mm	130 mm	140 mm	130 mm
●○ (round) 45°	130 mm	150 mm	130 mm	150 mm	130 mm	–	130 mm
■□ (square) 90°	120 mm	140 mm	120 mm	140 mm	–	130 mm	120 mm
■□ (square) 45°	110 mm	130 mm	110 mm	130 mm	–	–	110 mm
■□ (flat) 90°	305 x 20 mm	330 x 40 mm	305 x 20 mm	330 x 40 mm	–	330 x 40 mm	305 x 20 mm
■□ (flat) 45°	245 x 30 mm	250 x 40 mm	245 x 30 mm	250 x 40 mm	–	–	245 x 30 mm

FEATURES	KKS 400 E	KKS 450 E	KKS 400 H	KKS 450 H	KKS 400 T	KKS 450 R	KKS 400 DH
Hydraulic short-stroke clamping cylinder	●	●	–	–	–	–	–
Hydraulic long-stroke clamping cylinder	–	–	●	●	●	●	●
Horizontal stops left/right	○	○	○	○	–	–	○
Hydr. horizontal clamping device left/right	○	○	○	○	–	–	○
Work piece stop with contact surfaces on both sides of the saw blade	●	●	●	●	○	–	●
Electronic cut stroke limitation	●	●	●	●	●	●	●
Swivelling protection cover	●	●	●	●	–	–	●
Two-handed operation	–	–	–	–	●	●	–
Workspace lighting	○	○	●	●	●	●	○
Minimal lubrication	○	○	○	○	●	●	○
Hydraulic saw blade feed	●	●	●	●	●	●	●
Input/Output Roller conveyor T3	○	○	○	○	–	–	○
Length measurement system	○	○	○	○	–	–	–

● = standard ○ = optional – = not applicable

KALTENBACH AFTER SALES

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



▶ Original Parts

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:

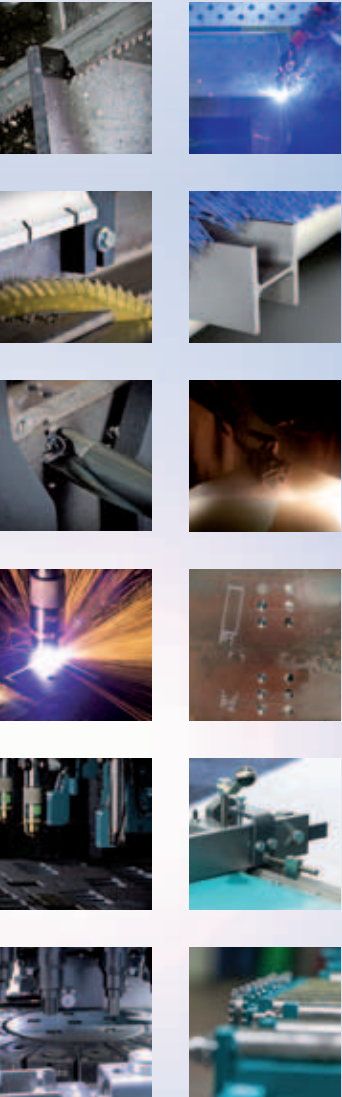
- ▶ BAND AND CIRCULAR SAWING MACHINES
- ▶ PROFILE DRILLING MACHINES
- ▶ PROFILE PROCESSING ROBOTS
- ▶ PLATE PROCESSING CENTRES
- ▶ PUNCHING AND SHEARING SYSTEMS
- ▶ WELDING ROBOTS
- ▶ SHOTBLAST SYSTEMS
- ▶ TOPCOATING MACHINES
- ▶ CONTOUR MARKING
- ▶ MEASURING SYSTEMS
- ▶ TRANSPORT SYSTEMS

For further information and our foreign affiliates please visit:

WWW.KALTENBACH.COM

Product videos:

WWW.YOUTUBE.COM/KALTENBACHGROUP



KALTENBACH GMBH + CO. KG

Blasiring 4

D-79539 Lörrach

phone: +49 7621/175 - 0

e-mail: info@kaltenbach.de

www.kaltenbach.com