SAW

KBS 1010

POWERFUL SOLUTIONS – PASSIONATE PEOPLE

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  - Standard Equipment
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GENERAL INFORMATION

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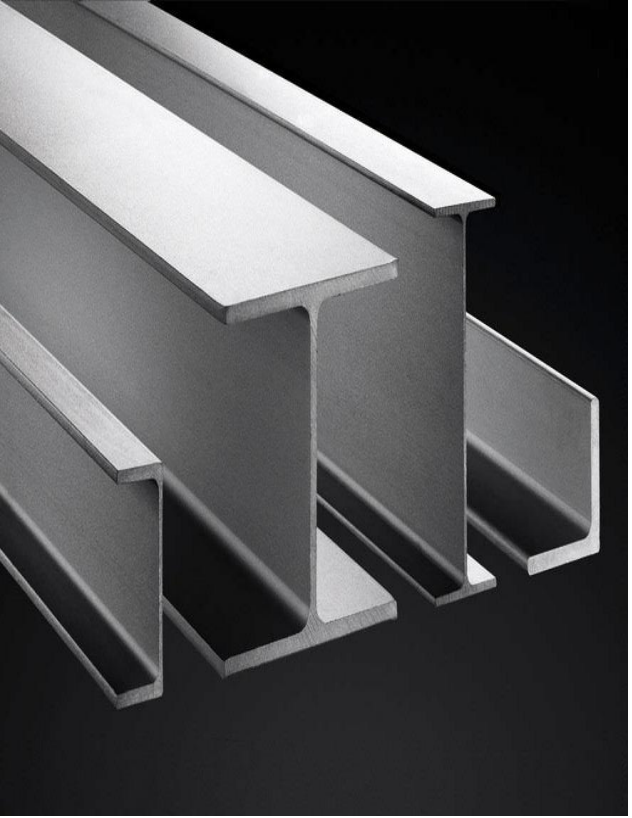
- Machines built with **passion** and **experience**
- **High-performance** sawing due to **powerful motors**
- **Vibration resistant design** for **longer saw band lifetimes**
- **Reliable measuring system** for high **cutting quality**
- **Automatic feed adjust**ment for great **cutting results**
- **All side clamping** system and **adjusting band guidance** for **vibrations reduction**
- Long-lasting **high-quality** and **heavy** construction
- User-friendly latest nesting software to **save time** and **material**
- Fast **service support** via webcam and helpdesk
- **Lower maintenance** and **personal costs**



WORKING RANGE

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- Max. Working Range
  - 90° 1010 x 500 mm
  - +70° 970 x 500 mm
  - -70° 950 x 500 mm
  - +60° 895 x 500 mm
  - -60° 870 x 500 mm
  - +45° 735 x 500 mm
  - -45° 695 x 500 mm
  - +30° 520 x 500 mm
- Min. Working Range
  - Min. 45 x 10 mm

TECHNICAL DATA

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- Drive Performance
  - Saw Motor Power 7,5 KW
  - Hydraulic Power 1,5 KW
- Cutting Speed 15-120 m/min
- Saw Band Feed 0-400 mm/min
- Fast approach 2500 mm/min
- Dimensions Saw Band 6.990x41x1,3 mm

TECHNICAL DATA

KBS 1010

- Working height: 640 mm
- Compressed air-connection: 8 bar
- Air consumption: 500 NL/min
- Weight: 3,9 t
- Machine dimensions: 3.610x1.160x2.420 mm
- Electrical equipment: 400 V, 50 Hz

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STANDARD EQUIPMENT

- Construction
  - Solid twin pillar construction
  - Saw frame inclined for better performance

✔ Long lasting investment for sustainable investment

✔ Short cutting times

STANDARD EQUIPMENT

- Cutting Speed Control
  - Manually adjustable during processing
- Infinitely variable band saw feed
  - Manually adjustable during processing
  - Hydraulic feed control

✔ Long lifetime of saw band

✔ Excellent cutting results

STANDARD EQUIPMENT

- Precise angle setting
  - NC-controlled by servo motor
  - Hydraulic clamping of saw frame if final mitering position is reached
- Automatic cycle control
  - Clamping – Sawing - Relieve

✔ High cutting accuracy

✔ Perfect fixation leads to great cutting results

STANDARD EQUIPMENT

- Self-adjusting profile clamping
  - Horizontal and vertical clamping
  - Positioned directly adjacent to the saw band
  - Clamping pressure can be adjusted manually
  - Return stroke limitation for material repositioning

✔ Great material fixation

✔ Less vibration for longer lifetime of saw band

✔ Opportunities of adjustments of clamping devices for different materials

✔ Low non-productive times

STANDARD EQUIPMENT

- Inclined saw frame
  - Inclined saw frame leads to smaller contact areas between saw band and material
  - Running in backlash-free linear guides
- Independent suspension

✔ Shorter cutting times

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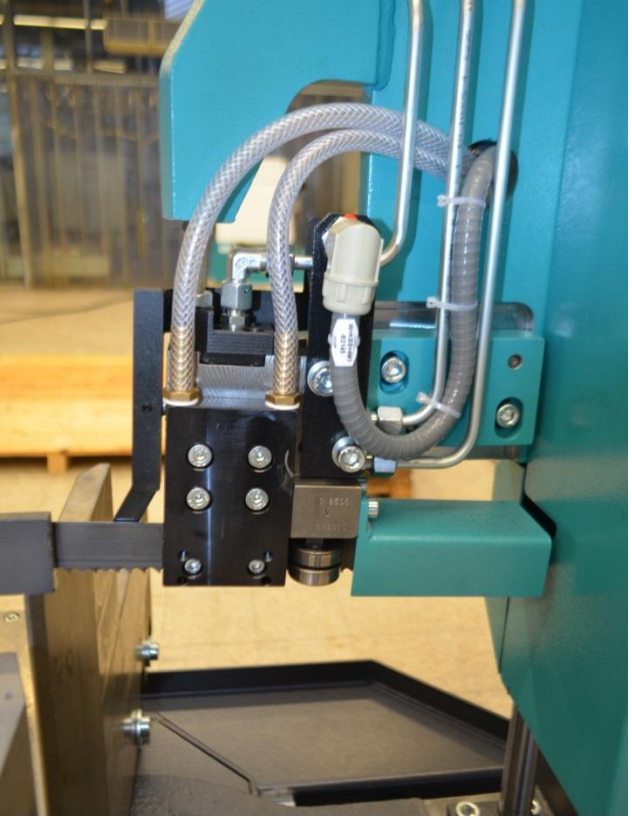


STANDARD EQUIPMENT

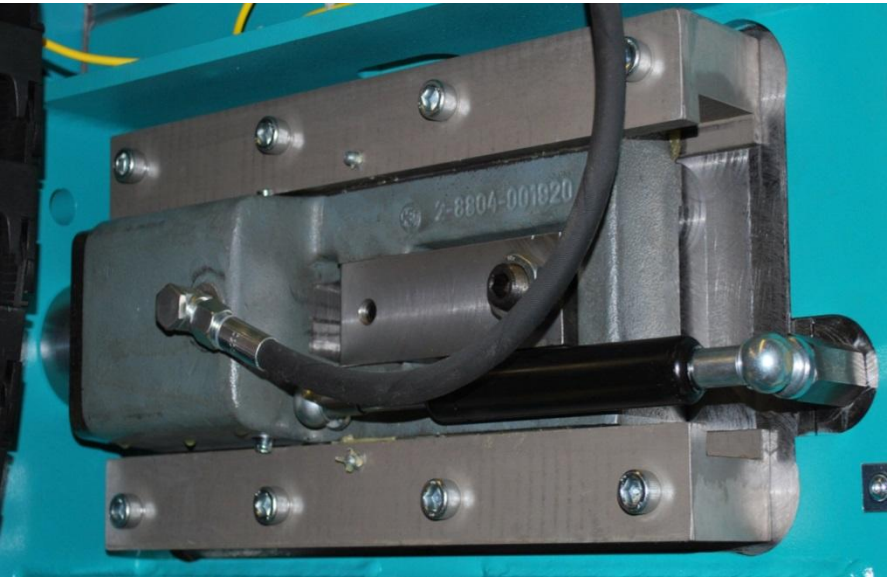
- Miter cuts free of length corrections
  - Rotation point is in intersection of datum line and saw band
  - Length correction calculations are not possible
- Automatic switching for rapid approach to feed rate
  - Automatic switching point determination by clamping device
- Cutting pressure control
  - Cutting pressure is measured in both band guidances.
  - Pressure is visualised and adjusted automatically.

✔ High process reliability and excellent quality

✔ Low cycle times

✔ High operation control and comfort

STANDARD EQUIPMENT

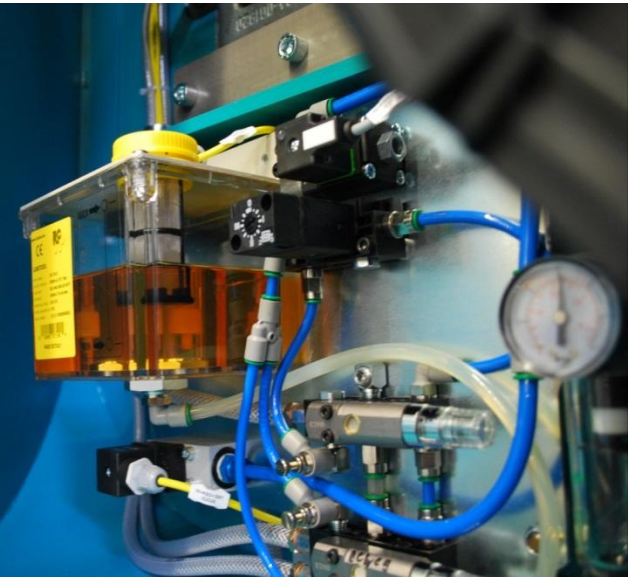


- Hydraulic band tension
  - Band tension is monitored and hold on a constant level
  - Machine switches off in case of band breakage
  - Tension is reduced during band stops

✔ High process safety

✔ Longer lifetime of tools

STANDARD EQUIPMENT



- Minimum lubrication
  - Micro-dosage unit for high performance lubrication
  - Low usage of lubricates
  - Environmental friendly

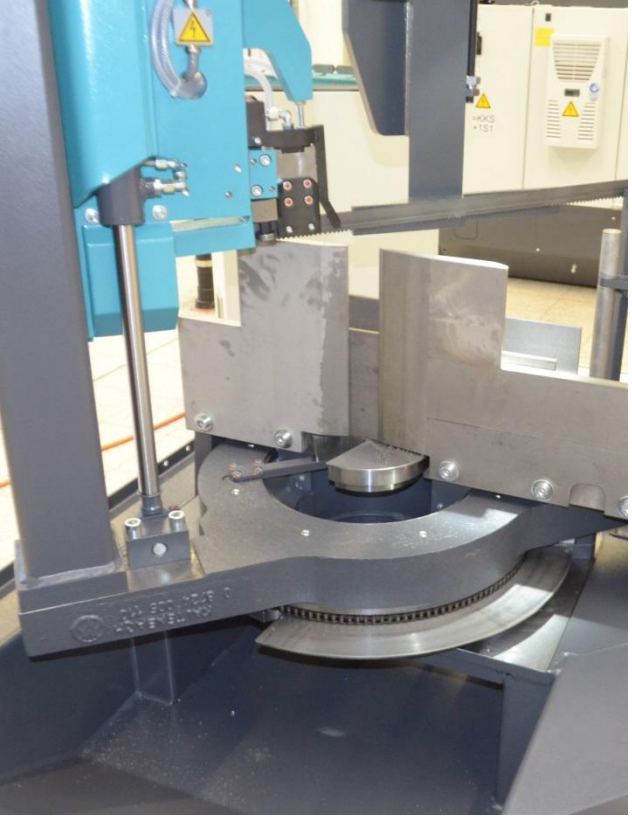
✔ Higher cutting performance

✔ Longer tool lifetime

✔ Lower costs due to minimal lubrication concepts

✔ Environmental friendly

✔ High process reliability



STANDARD EQUIPMENT

- Chip container
  - Integrated in machine base

✔ Easy chip handling

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STANDARD EQUIPMENT

- Chip removal brush
  - Chips between saw band tooth are removed
  - Driven by separate motor
  - Located directly above chip container
  - Automatic adjusting depending on abrasion

✔ Less pollution

✔ Lower cutting times

✔ Full automatization

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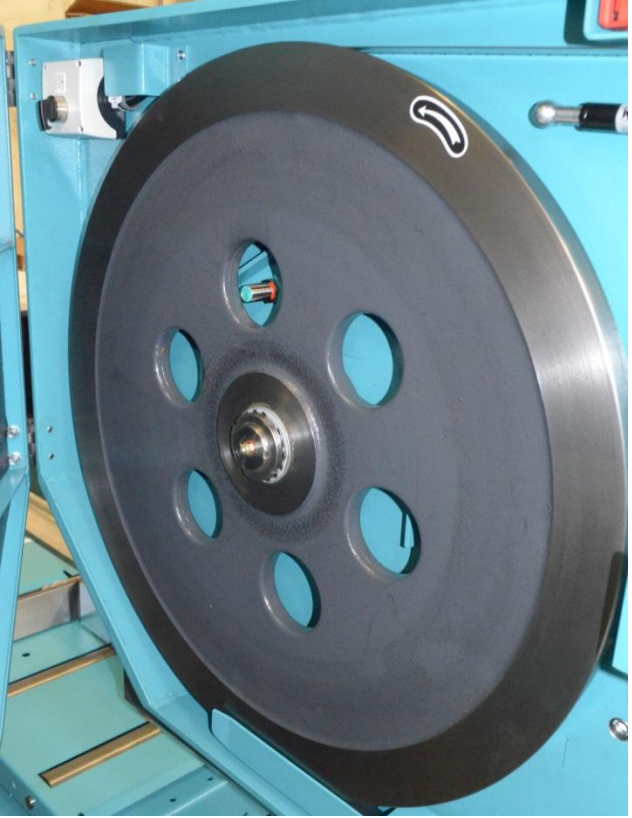


STANDARD EQUIPMENT

- Electronic band slip monitor
  - Rotation of both wheels are controlled and compared

✔ Wear of saw band or wrong cutting parameter can be detected

✔ Reliable process control

STANDARD EQUIPMENT

- Automatic hydraulic lowering of the machine
  - Machine lowers below the level of the roller conveyor between cuts

✔ Machine and workpiece are protected during material transport

STANDARD EQUIPMENT

- Saw band
  - Bi-Metal
  - M42
  - Z3/4
- Chip removal brush
- Hydraulic oil
- Gear oil
- Coolant
- Service tool set

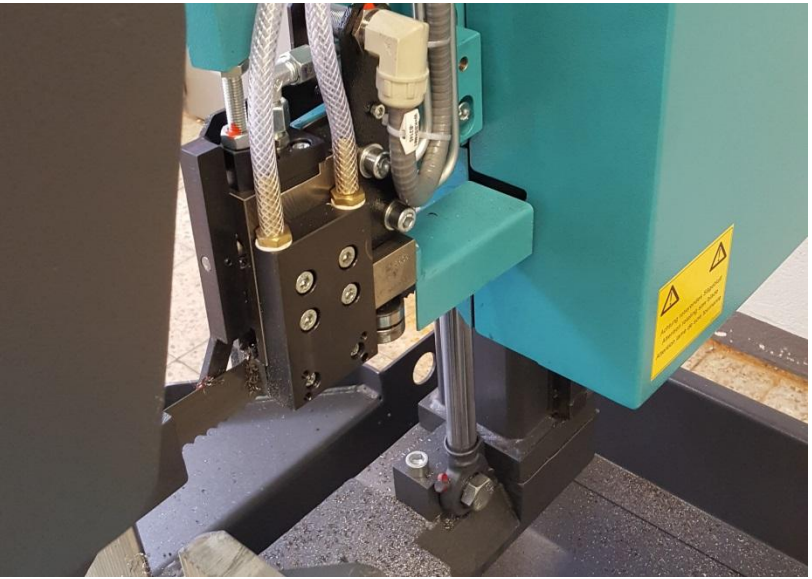
OPTIONAL EQUIPMENT

- Chip conveyor with container
  - Continuous removal of chips
  - Chip conveyor and chip container are swiveling with the machine

✔ Highest automation for less cleaning efforts

✔ Personal can do other tasks instead of cleaning

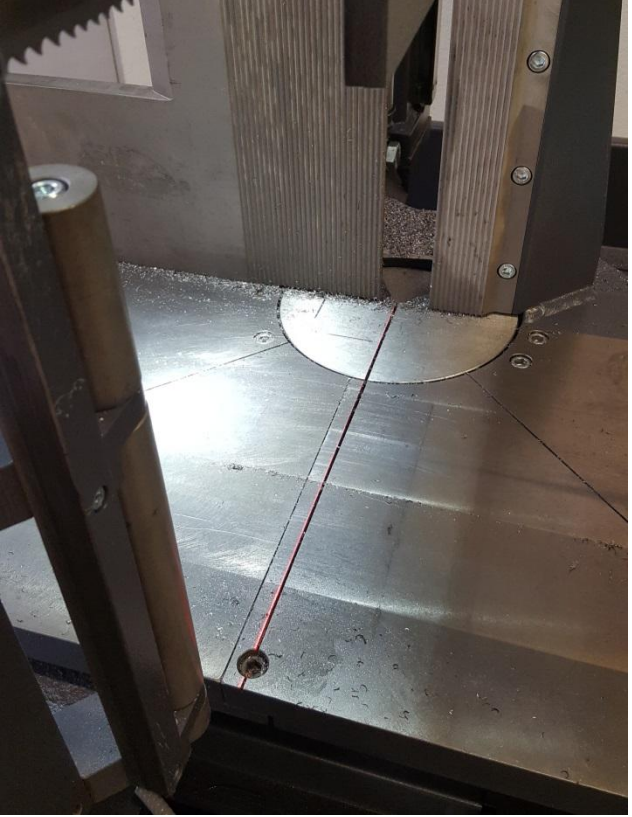
OPTIONAL EQUIPMENT



- Deflection monitor
  - Cutting quality is monitored
  - Machine stops if saw band overrides pre-set maximum remnant
  - Maximum can be individually adjusted

✔ High process reliability

✔ Ensures best cutting results



OPTIONALE AUSRÜSTUNG

- Laser
  - visualizing the cutting edge
  - Inclusive control of T13 transport roller conveyor

✔ Easy performance of manual cuts

OPTIONALE AUSRÜSTUNG

- Machine lamp
  - Good light conditions in working area

✔ High process reliability

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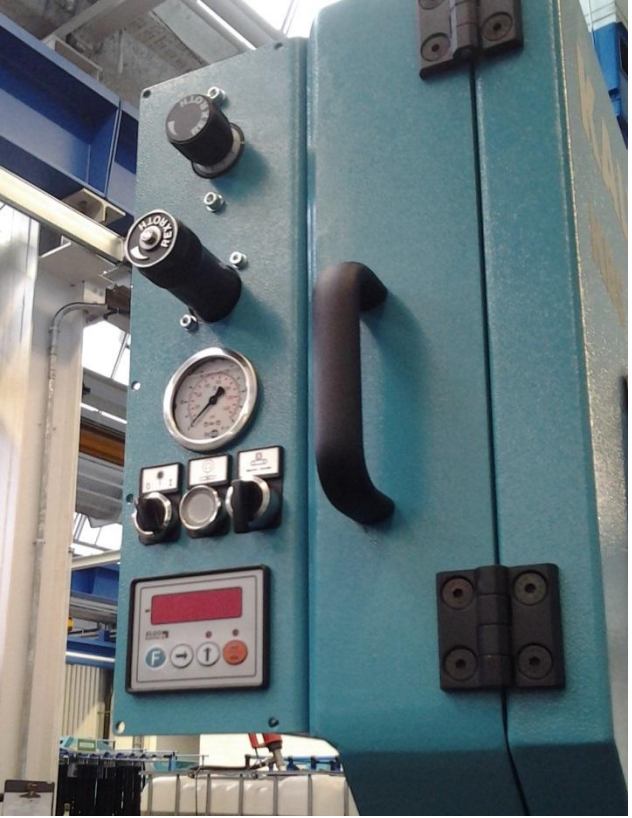
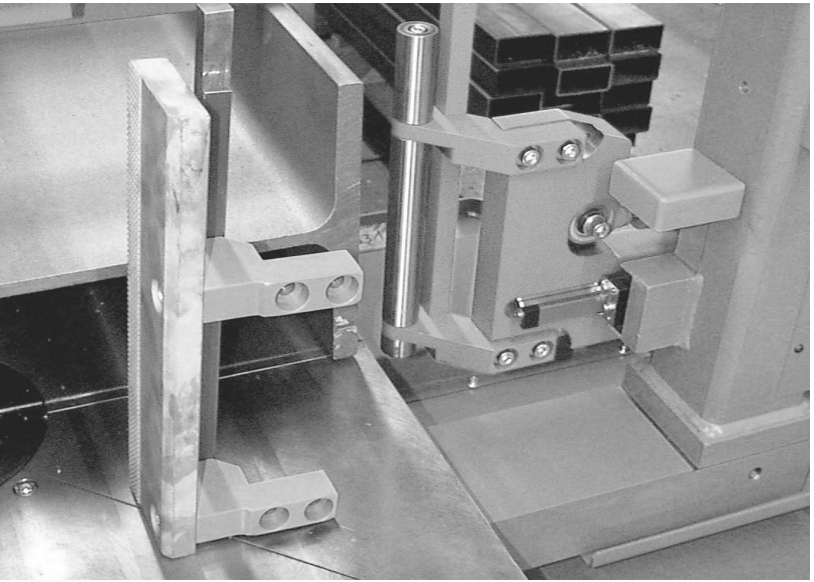


OPTIONAL EQUIPMENT

- Operating elements on the other side of the saw frame
  - operating elements for saw feed and cutting pressure control are arranged at the machine side with the fixed clamping jaw

✔ Operating elements can be adjusted to layout and customers way of working

OPTIONAL EQUIPMENT



- Special clamping unit
  - Designed for rectangular cut-offs
  - Cut-off length can be reduced to minimal 8 mm

✔ Less scrap

OPTIONAL EQUIPMENT

- Cooling device in operating cabinet
  - For temperatures over 35°C
- Heating device in operating cabinet
  - For temperatures under 5°C
- Cooling device in switchboard cabinet
  - For temperatures over 35°C
- Heating device in switchboard cabinet
  - For temperatures under 5°C

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KBS1010 -18

KBS1010 -19

KBS1010 -20

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SOFTWARE

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STANDARD EQUIPMENT

Hardware

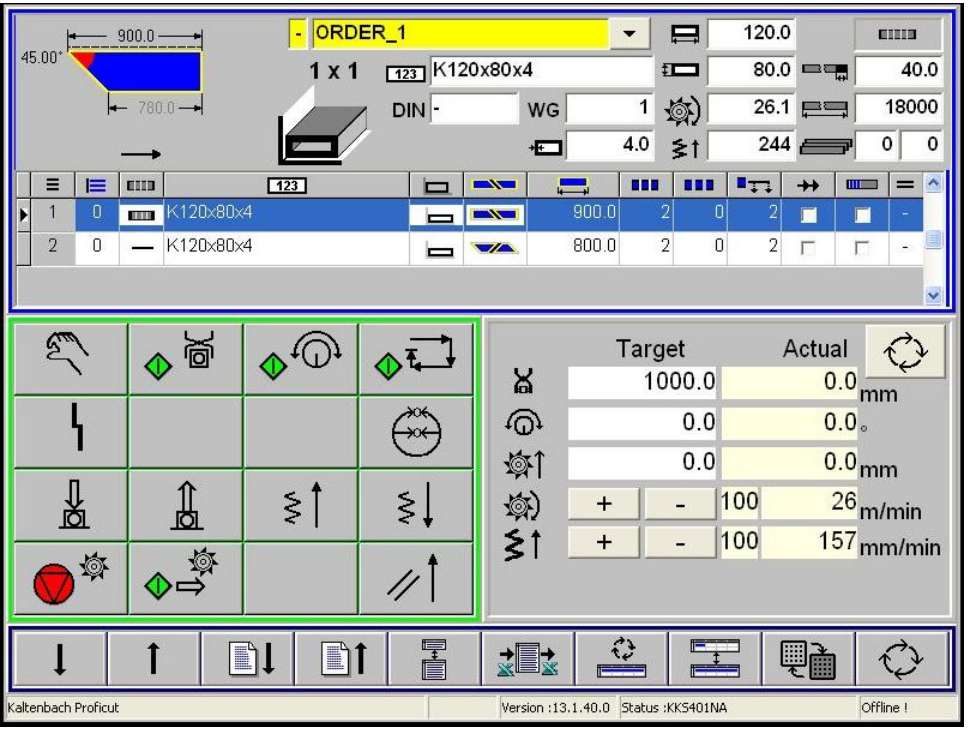
- Industrial PC in operation panel with touch screen
- Remote diagnosis via TeamViewer
- CNC control of all axis
- Network card
- All control components are from one supplier

✔ Protection of Hardware because of solid housing of operation cabinet

✔ Usability also in rough conditions

✔ Modern support activities

STANDARD EQUIPMENT



Proficut

- Visualization
  - Overview of entered programs with several features
  - Displaying the process status
  - Work piece dimensioning according to customer drawings
  - Position of work piece
  - Overview of parts to be cut (nested)
  - Process visualization of parts already cut

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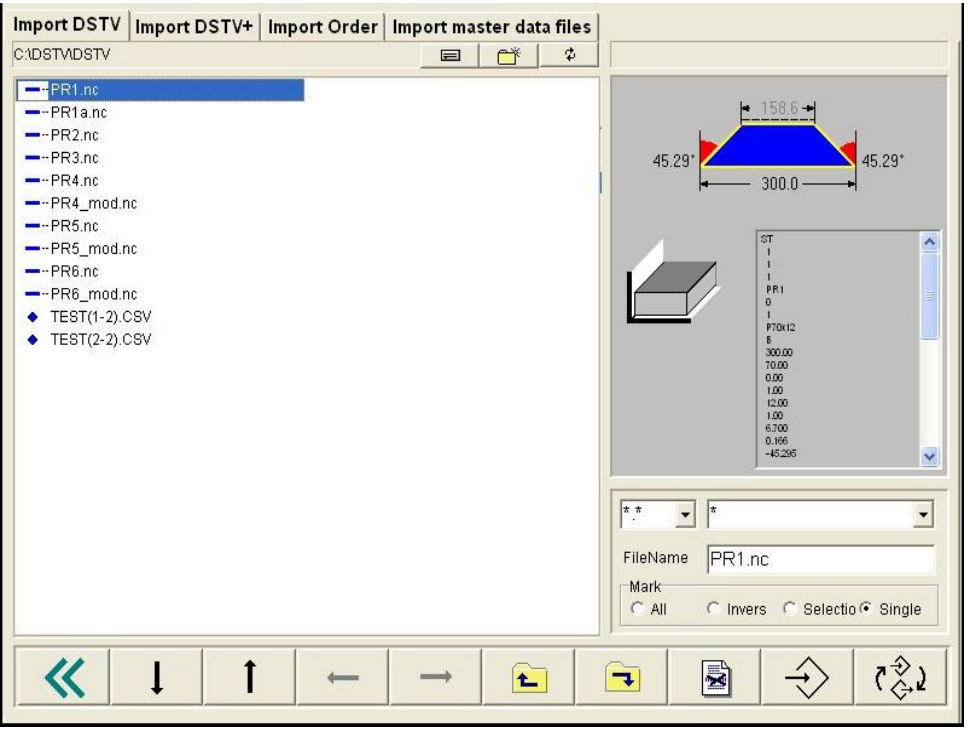
STANDARD EQUIPMENT



Proficut

- Data Transfer possibilities
  - Data input directly at the machine control cabinet through the operator
  - PROFICUT software license (see options)
    - Generate work piece directly in Proficut or import them as DSTV-files in the office
    - Transfer from office to machine is done by customer network
  - Import possibilities
    - DSTV- file
    - CSV file (Kaltenbach Formate)

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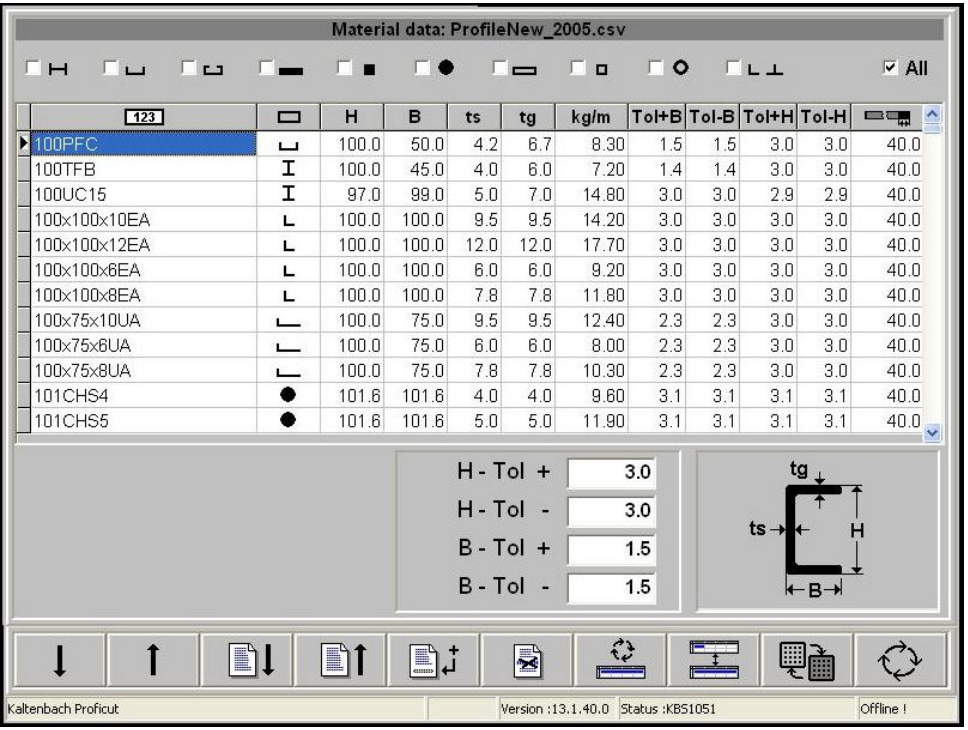
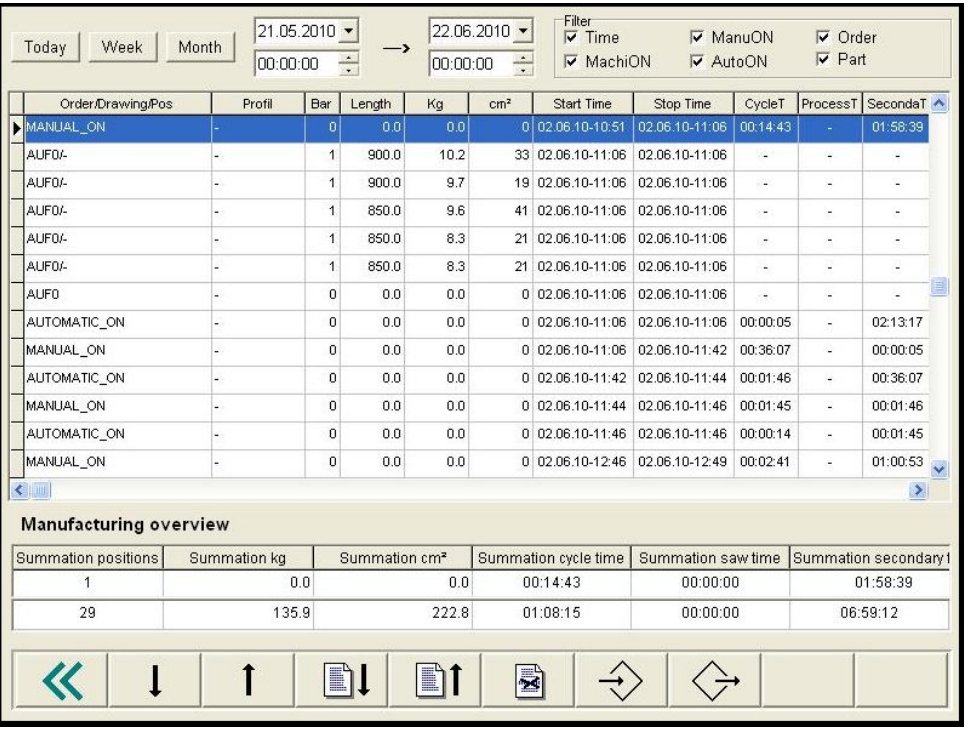
STANDARD EQUIPMENT



Proficut

- Norm data base
  - All DIN standard profiles are in the data base
  - Other international norm or special profiles can be added
  - Management is done via material ID
- Part data base
  - Work pieces which are often produced can be saved in a database
  - Management is done via part ID

STANDARD EQUIPMENT



Proficut

- Data feedback
  - Production progress can be monitored in real time
  - Feedback produced parts is done via DSTV+ file
  - Many ERP systems can work with this standardized format
- Production report
  - Monitoring of production and non-production times
  - Times can be grouped by part, shift or orders
  - Export can be done via CSV-format (for Excel)

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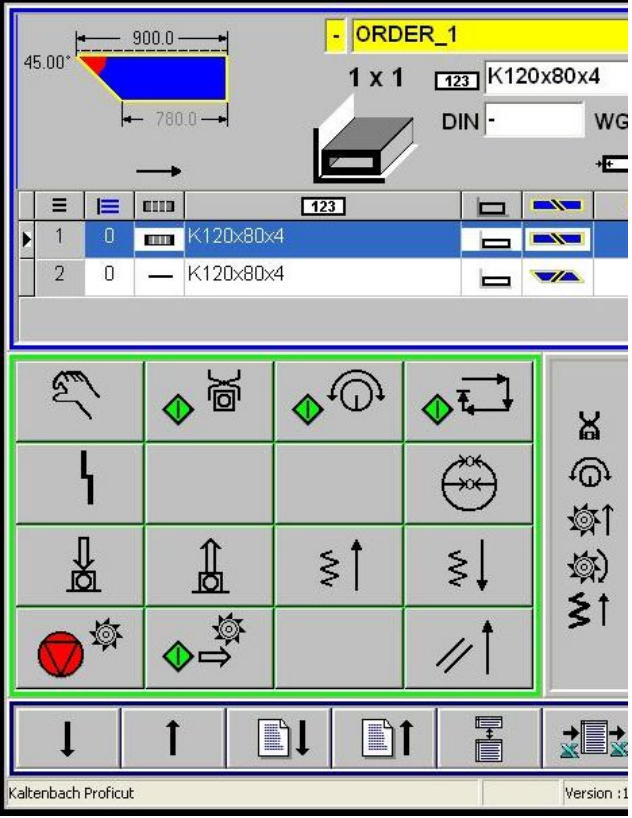

OPTIONAL EQUIPMENT

- Additional PROFICUT software license
  - Proficut for office PC (by customer)
  - Parts can be programmed or imported in the office and transferred to the machine
  - Transfer is done via customers IT network

✔ Separation of Production and Work Preparation

✔ Higher machine utilization

✔ Solution considers different education levels

MEASURING-SYSTEM

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STANDARD EQUIPMENT

- Measuring Range (Standard) 12 m
- Positioning Speed 0-30 m/min
- Length measuring via laser sensor at front end
- Servo regulated positioning for precise measuring

✔ Fast material transport

✔ Accurate material positioning and measuring

STANDARD EQUIPMENT

- Hydraulic height adjustment of clamping arm
- Automatic approach to profile end with high speed
- Electronic material contact recognition
- Other measuring carriages and gripper solutions on request

✔ Handling of most materials possible
✔ Full automation
✔ Reliable and accurate positioning possible

OPTIONAL EQUIPMENT

- Extension of measuring length by one metre
  - For material longer than 12m

M150P-1

- Additional plate for pushing layers and bundles
  - Parallel sawing of material bundles and layers

M150P-2

✔ Customized transport systems

✔ Lower production items per good pieces

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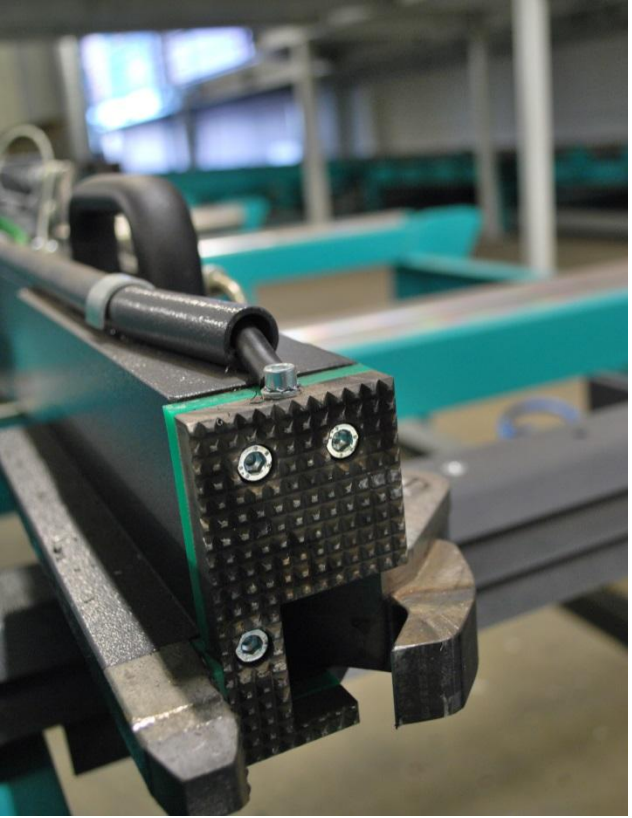

OPTIONAL EQUIPMENT

- Processing of flat material lower 20mm
  - For processing very low steel profiles

M150P-3

- M 151 G length measuring system
  - carriage with hydraulic gripper
  - exchangeable pusher adapter included
  - Alternative to M150 P

M150P-4

✔ Processing of almost all material possible

TRANSPORT-S YSTEM

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STANDARD EQUIPMENT

Roller Conveyor

• Working height	640 mm
• Roller diameter	77,4 mm
• Roller width	730 mm
• Effective roller width	1010 mm
• Transport Speed	0-30 m/min
• Infeed roller conveyor length	2,2-12,0 m
• Outfeed roller conveyor length	2,2-12,0 m

OPTIONAL EQUIPMENT

- Cross Transport via Drag Chains
  - Transport speed 0-10 m/min
  - Reverse speed 0-30 m/min
  - Total length 3 m
  - Material length 2,2-12,0 m
  - Drag weight (per cross transport motor) 4,5 t

✔ Cheapest cross transport opportunity

✔ Movement of single profile possible

✔ Quiet cross transport due to polyamide layer

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OPTIONAL EQUIPMENT

- Cross Transport via Lift and Carry System
  - Transport speed 0-10 m/min
  - Reverse speed 0-30 m/min
  - Total length 3 m
  - Lifting capacity 2 t
  - Lifting height 65 mm

✔ Moving several parts/batches together

✔ Quietest cross transport opportunity

✔ Material flow in both directions possible

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OPTIONAL EQUIPMENT

- Cross Transport via Trailing Hocks
  - Transport speed 0-10 m/min
  - Reverse speed 0-30 m/min
  - Total length 3 m
  - Material length 2,2-12,0 m
  - Drag weight (per cross transport motor) 4,5 t

✔ Movement of single profile possible

✔ Material flow in both directions possible

✔ Quiet cross transport due to polyamide layer

OPTIONAL EQUIPMENT

Cross Transport

- Drag Chains
  - Infeed
  - Outfeed

T13-SK-K1

T13-SK-L2

- Lift and Carry System
  - Infeed
  - Outfeed

~~T13-HW-K1~~

~~T13-HW-L2~~

- Hub Pins
  - Infeed
  - Outfeed

~~T13-QTP-K1~~

~~T13-QTP-L2~~

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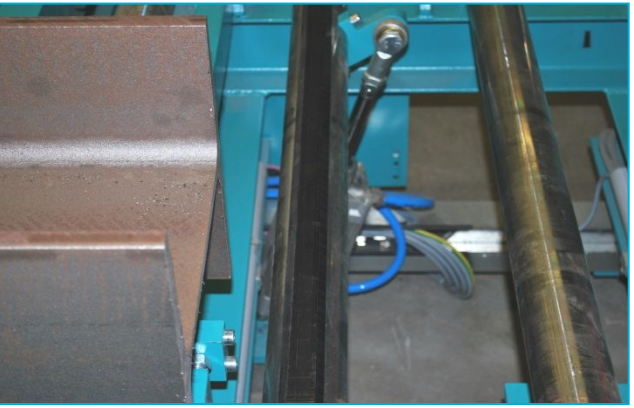

OPTIONAL EQUIPMENT

- Safety
  - Safety fence per meter — T13-2
- Cooling and Heating
  - Cooling device for switchboard cabinet — T13-3
  - Heating device for switchboard cabinet — T13-4
- Silencer — T13-5
  - Low noise cross transport
  - Additional pneumatically liftable rollers with a polyamide bar
  - Home position (upper picture= - material transport on roller conveyor
  - Extended position (lower picture) - material transport on cross conveyor

THANK YOU FOR YOUR ATTENTION

POWERFUL SOLUTIONS – PASSIONATE PEOPLE

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