

### KASTOmiwin.

Hightech for economic profile machining in straight and mitre cutting.





# Two-column guided band saw for straight and double-sided mitre cutting in steel service centers and workshops in fully and semi-automatic versions.

This two-column guided band saw for single cuts and mitre jobs (-45 ° / + 60 °) is characterized by a frequency-controlled, infinitely adjustable blade speed (12-150 m / min), a cutting strip, which is turning with the saw head, of wear-resistant spring steel as material support, an electric motor-driven saw feed and a hydraulic material clamping. The hydraulic material clamping is automatically shifted hydraulically depending on the positive or negative cutting angle. Optionally, the saw can be ordered with a 34 or 41 mm saw blade. The standard *SmartControl* in the semi-automatic version and *ProControl* at the fully automatic machine offer an optimal machine operation.

#### All advantages at a glance:

- No wear of the material support due to swinging support table right next to the sawblade
- Exact parallel material clamping due to movable vise. Parts can't jam (Wedge).
- Optimized cutting times with KASTOrespond
- Constant saw feed by means of ball screw spindle
- Fast, accurate material feed with gear rack (only KASTO miwin A 4.6)
- Electrically powered chip removal brush
- Low burr formation
- Low torsional load (bladetwist) on the sawblade for a long bladelife
- Automatic electric guidearm adjustment
- Accurate mitre positioning



TECHNICAL DATA KASTO <i>miwin</i>		U 4.6	A 4.6
Cutting range [W x H] ● / ■ / ■			
90°	mm	360 / 460 × 360 / 360 × 360	360 / 460 × 360 / 360 × 360
+ 45°	mm	360 / 340 × 340 / 340 × 340	360 / 340 × 340 / 340 × 340
+ 60°	mm	250 / 240 × 340 / 240 × 240	250 / 240 × 340 / 240 × 240
- 45°	mm	360 / 340 x 340 / 340 x 340	360 / 340 x 340 / 340 x 340
Minimum cut length	mm	20	20
Minimum sawing diametre	mm	30 / 30 × 20	30 / 30 x 20
Minimum remnant length (single / automatic)	mm	30	30 / <150
Cutting speed, infinitely variable	m/min	12 – 150	12 –150
Saw feed		electromotive	electromotive
Saw motor, frequency controlled	kW	4	4
Total connected load for standard machine	kW	6	6
Dimensions of bandsaw blade	mm	6190 x 41 x 1,3	6190 x 41 x 1,3
Optional dimensions of bandsaw blade	mm	6190 x 34 x 1,1	6190 x 34 x 1,1
Material support height	mm	700	700
Length of the basic machine	mm	2.200	3.570 (1.500 mm advance)
Length (3.000 mm advance)	mm	-	5.070
Width	mm	2.920	2.920
Height	mm	1.950	1.950





#### **KASTO** respond

For the first time there is a mitre saw of this type on the market that is equipped with this sensor technology. Our new system KASTO*respond*, especially developed for this product series, offers a perfect machine adjustment for solid material, tubes and profiles of all types of material. The system permanently records the forces on the tooling, without using additional and often fault-prone sensor systems and transforms the forces into the optimum digital feeding speed. KASTO*respond* recognizes early enough thick-walled and thin-walled material, ever-changing contact lengths for tubes and even rough areas in solid material and transforms into the correct feeding speed. The operator only has to program the relevant data as cut-off length, pieces and material to saw.

The rest is up to the KASTOmiwin.

#### **BENEFITS**

Stock can have different sawing characteristics, despite being nominally of the same material. Various metals often cut in different ways, for example because they originate from different batches. Previously both were cut with identical parameters. KASTO*respond* now detects whether a material is easier or more difficult to saw by monitoring the cutting force and varies the saw infeed until the target cutting force is reached.

The system also operates extremely impressively when sawing tubes, profiles and tube/profile bundles. In these applications, the conventional control system can take little action because the amount of material engaged by the blade and the cutting forces are continuously changing. The machine is therefore seldom in the optimum cutting range. This is where KASTO *respond* is highly effective.

#### Example of thin-walled square tube:

When the saw band reaches the surface of the square tube, a large number of teeth are in contact. This results in the saw blade being quickly overloaded, and the spaces between the teeth are filled with material. KASTO*respond* reacts immediately, reducing the infeed within a fraction of a second so that the tool is slowly driven with a moderate downfeed speed. As soon as the saw blade breaks through the surface and into the sides of the material, the cutting force is reduced and the control increases the feed rate to the optimum value.



The system controls the cutting force continuously, so that the system is constantly at the permitted cutting force and does not exceed it. The saw downfeed optimises itself without intervention from the operator when this takes place. It leads to optimal productivity and also extends blade life.

KASTO*respond* can be activated or deactivated. If deactivated, the controller calculates the saw down-feed with which the material is to be cut on the basis of the material technology values, the dimensions and the tool data.

Sawing is carried out with a constant feed for any given type of material, with the exception of when the downfeed is reduced as the blade enters and leaves the stock.

#### MITRE REDEFINED BY SWIVELING CUTTING BARS

The hydraulically operated horizontal clamping vise enables optimum workpiece clamping. Depending on the mitre angle, the complete clamping unit is moved hydraulically, including the material support table, in front of or behind the cutting plane. This ensures parallel clamping of the material independently of the mitre angle. The material support is not subject to wear due to the pivoting cutting bars.





## The complete KASTO program: Saws. Storage. And More.

#### EXPERTISE RIGHT DOWN THE LINE.

For more than 175 years, KASTO has been recognised for quality and innovation. Today, KASTO offers not only metal saws but also automatic storage systems for long goods and sheet metal, as well as customised material logistics solutions. The product portfolio is rounded off by innovative digital solutions and the powerful KASTO service. Thanks to ongoing development of new technologies and constant optimisation of machine concepts, KASTO has achieved the status of market leader in sawing and storage of metals.

KASTO'S SAWING MACHINES.







From the basic hacksaw to the high-performance automatic bandsaw capable of economically processing bar stock, blocks or plates of all grades, KASTO has the best solution for every challenge: Universal bandsaws and circular saws for light and medium applications, hacksaws employing the pushing-arching-cutting motion originated by KASTO, and production bandsaws and circular saws designed to cut medium to difficult materials. KASTO sort offers the possibility to palletise the complete variety of cut-off pieces of the KASTO sawing machine without additional operating effort – or to pass them to further processing systems.

KASTO'S STORAGE SYSTEMS.







Short provision time, optimum space utilisation and ideal stock overview: These are some of the benefits of KASTO storage systems from a standard tower storage to individually adapted bar and sheet metal storage system up to sophisticated material logistics and handling solutions such as the fully automatic sawing center KASTO center or the tour distribution system KASTO rail – KASTO plans and delivers the whole system including modern and flexible software solutions from one source.

KASTO'S MORE.







The extensive services of KASTO start already in the analysis and planning phase and do not stop with the commissioning and training. Maintenance concepts, service contracts, fast availability of spare parts or on-site maintenance and repair are just as much a part of this as individual remote support and advice via KASTO *VisualAssistance* or *RemoteAssistance*. KASTO *retrofit* adapts your machine or system to current requirements and re-enables it to be a powerful and reliable component of the production and logistics chain. And of course, KASTO service is available worldwide.

KASTO

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