

## ISELI – Worldwide expertise in sharpening machines

ISELI, in the Swiss town of Schötz, has combined tradition and creativity for over 70 years in the field of sharpening technology for band, gang and circular saw blades for wood, aluminum, plastic and metal. In constant dialog with the customers and thanks to the team of competent and committed employees, its sharpening machines and complex systems have set worldwide standards. Innovative mechanical engineering and effective system technology ensure the highest customer satisfaction.

### Swiss quality by tradition

Customer orientation and expertise from the very beginning! ISELI is today one of the leading suppliers of sharpening machines and systems for sawmills, saw producers and saw service companies that place the highest demands on efficiency and cost-effectiveness.

ISELI system technology is convincing thanks to its maximum operating convenience, flexibility in the applications as well as to adaptation to customer requirements. Its outstanding quality makes ISELI sharpening machines a future-proof investment.

### Together ahead of the competition

As a customer, you benefit on one hand from our fair, partnership-based cooperation and on the other from our continuous development of the machining and sharpening processes. An additional advantage is the intelligent optimization in process and product handling.

### We are system solvers

As a specialist in sharpening technology, we develop modern, future-oriented system solutions and machine concatenations.

We bring the automation of the sharpening processes and the optimization of the handling to „INDUSTRY 4.0“ cost-efficient harmonization.

### Our core competences



#### Machining and sharpening solutions for band and gang saws

We offer our customers the world's largest selection of specialized and combined processing and sharpening machines:

- Profile grinding • Side grinding
- Straightening / tensioning
- Measuring / marking
- Tipping / Swaging • Welding



#### Sharpening and handling solutions for Carbide / HSS circular saw blades

Space-saving compact machine design, clear and simple operation, economical energy consumption as well as flexibility in machining are the essential features of our machine series for the treatment of:

- Hook and side angles (HM)
- Side angles (HM)
- Geometry and profile (HSS)
- Automation / Handling
- Repair / Brazing

Technische Änderungen vorbehalten.

# RZ1

Fully automatic CNC controlled levelling  
and tensioning center for band saws

for the most consistent and accurate  
maintenance of benching saw blades.





# Specifications

Basic information:		
Working speed	**	15 m / min.

Band saws:		
Blade width (Standard)		70 - 210 mm
Blade width (Optional)		up to 360 mm
Blade width (Optional)		from 50 mm
Blade thickness		0.8 - 2.0 mm
Blade length		from 5'000 mm

Power requirements:		
Standard Voltage		400 V 3 Ph. N
Connected load		5.0 kVA

Air supply:		
Compressed air supply		6 bar

Shipping informations:		
Dimension of packing		240 x 210 x 230
Net weight		approx. 2'450 kg
Gross weight		approx. 2'850 kg

Training / References:		
Reference visits (worldwide) by appointment		
Employee training by appointment		

Subject to alteration in design for technical advancement.

Special executions on request.

Certificate ISO 9001

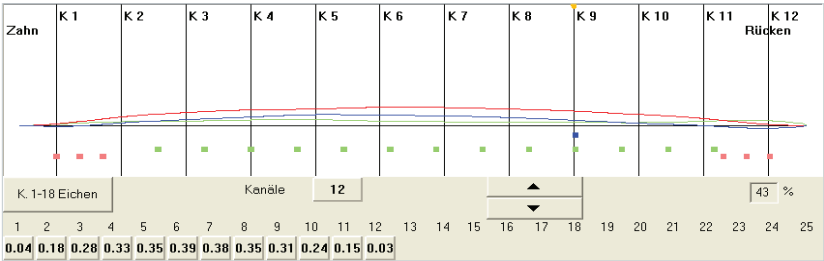
## Patented ISELI process for maximum precision

Levelling, tensioning and straightening of band saw blades has traditionally been a highly labour-intensive job which could only be performed in individual steps by highly skilled and qualified operating personnel.

The ISELI benching centre lets you level, tension and straighten your band saw blades in a single operation. The measurement is performed over the entire blade using high-resolution sensors. This method is patented and ensures best results!

## Tensioning and back measuring-adjustment

The two working cycles are executed utilizing two separate pairs of rolls. The hydraulic tensioning pressure is proportionally controlled by an electronic valve. The tension of the saw blade is measured at the same time on the complete width of the blade by means of individual electronic sensors. The saw blade is tensioned and the back measured adjusted in several passages as required. The tension curve of the saw blade and the measured curve of the blade back can be selectively programmed and saved. The red line on the photo indicates the saved tension curve and back measure desired, the green line is the actual condition of the saw blade as measured. The sequence of tensioning and back measuring-adjusting can be selectively programmed, saved and recalled in case of repetition of the same type of saw blade.



## Levelling

The specifications of the band saw blade as well as the method of treatment can be programmed at the display by means of the touch-screen. An electronic sensor measures the deformity, two CNC-controlled rollers, concave and convex, level the deformities with proportional pressure, depending on the unevenness measured. This type of working system, the ISELI RZ-1 operates very quiet, with extremely accurate and consistent working results on the levelling of the blade to meet optimal cutting requirements in the mill.

Planieren | Spannen | Auto Stop

M1 -13.68  
M2 -13.73

Kopf Nullen | 0.03  
☐ Mit Spannwelle  
☐ Transportrolle Aus

☐ Automat Nullen nur Hinten  
☒ Automat Nullen Hinten + Vorne

Nur Messen

Home

Blattdicke | 1.48

Blattbreite bis Zahngrund | 170

Anzahl umgänge | 2

Abstand umgang 1 | 12

Abstand umgang 2 | 12

Abstand umgang 3 | 0

Abstand umgang 4 | 0

Abstand umgang 5 | 0

Blattlänge | 8059

Grenzwert | 0.02

☐ Schweissnaht auslassen

Start Test

Man. Planieren

Position | 0

Basiswert mm | 0.08

Messen

Proportionalfaktor (bei 0.01 mm) | 10

K Faktor (Steigung) | 2

M/C Dat

Hydraulik Ein/Aus

Transport Ein/Aus

Transport Klemmung

Blattklemmung Arm

Blattklemmung Rollen

Verstellung Blattbreite

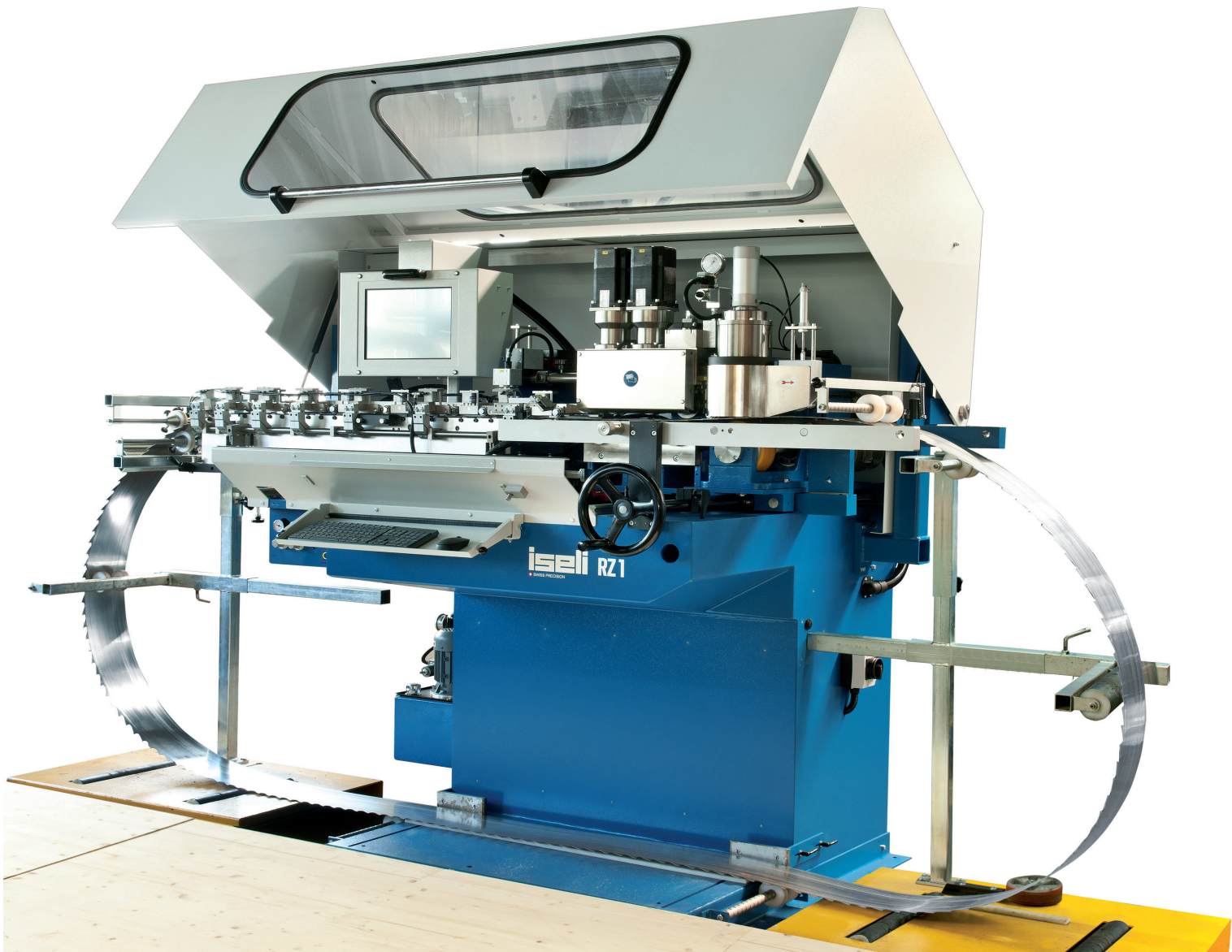
Start Auto

Start Automat

STOP

Sensorschutz Vor/Zur.

STAT



## The most important features

- Fully automatic measuring, levelling, tensioning and straightening in a single clamping operation.
- Considerable simplification of work processes for operating human resources.
- Our CNC-controlled levelling, tensioning and back measuring-adjusting center completely addressed these higher standards and requirements to meet today's needs.
- Full enclosure of the entire working area. Complete personnel protection. Operation of the machine by use of a touch screen monitor or with a normal keyboard.
- Conception and design of the machine are very operator friendly. That means short programming times, rapid familiarisation and flexible deployment of operating personnel at short notice.
- The use of proven components and aggregates as well as in-process quality control are the basis for operational safety, optimum work results and durability.
- Only one machine for levelling, tensioning and straightening, thus requiring less space.
- The optimal accessibility of the maintenance elements and the separation between the machine area and working area make service and maintenance quicker and easier.
- The order of levelling, tensioning and back measuring-adjusting can be selectively called and programmed. The values can be downloaded, and the programme recalled with the same values for duplication of saw blades of the same specification at a later time. This allows for accurate and consistent results time after time.
- Best results by using the latest software architecture. There are unlimited possibilities for saving the software.
- Optional possibility of printing and logging of the blade datas at certain points (before-after comparison of blades).
- After a great deal of research, development and testing, the ISELI RZ1 meets the highest requirements of precision and operational conveniences.
- The latest CE-regulations are completely observed. The electrical equipment corresponds with IEC-60204-1 standards.