



## ISELI – PRECISION FOR A PERFECT CUT

ISELI develops and manufactures grinding machines, complex processing machines and automation for a perfect saw shop at manufacturers of tools, service providers as well as for sawmills in the field of sharpening technology for band, gang and circular saw blades in the area of wood, aluminum, plastic and metal. Convince yourself of our expertise and experience for a perfect cut!

### Swiss quality by tradition

As a traditional family business, today already managed by the third generation, ISELI is developing sharpening machines with the latest technologies and excellent engineering – made in Switzerland.

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.



Sharpening solutions for band and gang saws



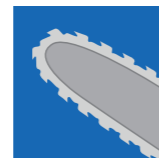
Sharpening solutions for circular saws



Sharpening solutions for hand tools



Sharpening solutions for industrial blades



Sharpening solutions for chain saws



Service



# RZ 1

## FULLY AUTOMATIC CNC CONTROLLED LEVELLING AND TENSIONING CENTER FOR BAND SAW BLADES

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



# SPECIFICATIONS

## GENERAL INFORMATIONS:

Working speed approx. 15 m / min.

## BAND SAWS:

Blade width (Standard)	70-210 mm
Blade width (Option)	up to 360 mm
Blade width (Option)	from 50 mm
Blade thickness	0.8 - 2.0 mm
Blade length (Standard)	from 8'000 mm
Blade length (Optional)	from 5'000 mm

## PROPERTIES:

Standard Voltage	400 V 3 Ph. N
Connected load	5.0 kVA
Air supply	6 bar
Weight	approx. 2'550 kg

## OPTIONS:

- Equipment for double toothed band saw blades
- Sensor girder with increased definition
- Signal lamp
- Printout of operating results

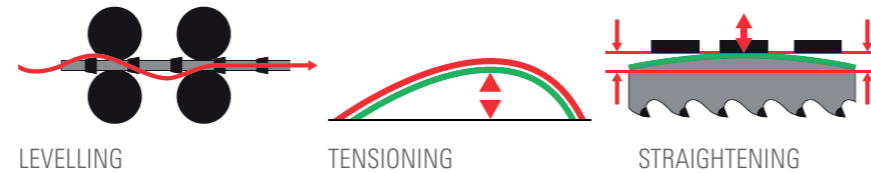
Subject to alteration in design for technical advancement.

# PATENTED ISELI PROCESS FOR MAXIMUM PRECISION

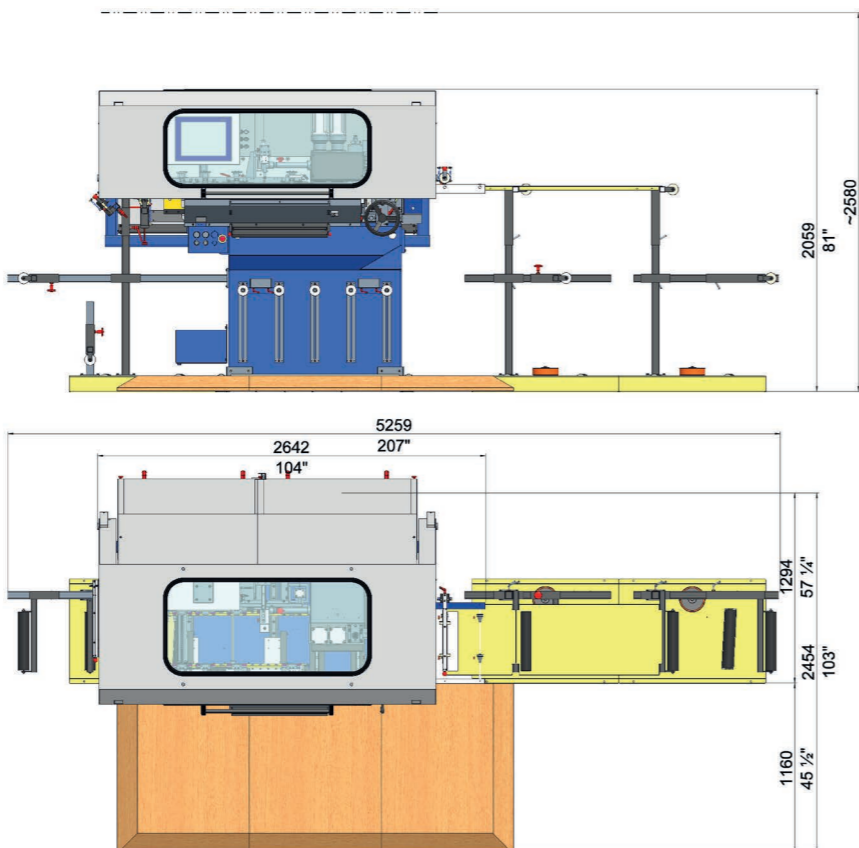
Levelling, tensioning and straightening of band saw blades has traditionally been a highly labour-intensive job which could only be performed in individual steps by highly skilled and qualified operating personnel.

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!

## LEVELLING, TENSIONING AND STRAIGHTENING IN A SINGLE CLAMPING OPERATION



## SPACE REQUIREMENTS



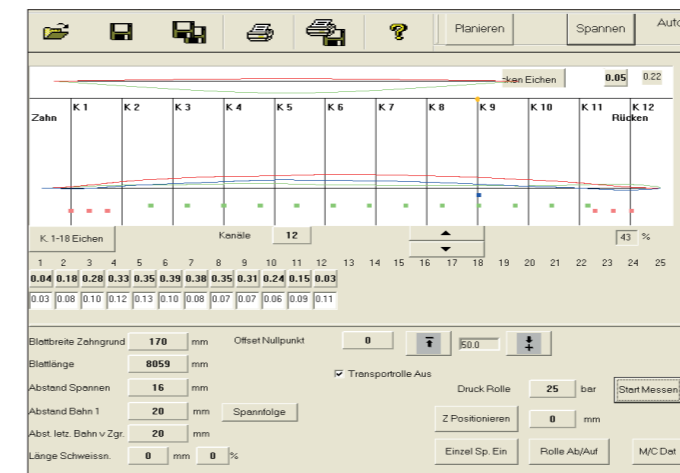
# HIGHLIGHTS

- 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 data 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.

## 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.



## 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 RZ1 operates very quiet, with extremely accurate and consistent working results on the levelling of the blade to meet optimal cutting requirements in the mill.

