



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



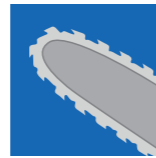
Sharpening solutions for circular saws



Sharpening solutions for hand tools



Sharpening solutions for industrial blades



Sharpening solutions for chain saws



Service

BNP 200 / 210 [G2]

MACHINE FOR AUTOMATIC PROFILE SHARPENING OF BAND SAW BLADES CONTROLLED WITH 4 CNC AXES IN WET GRINDING

The 3rd axis allows separate sharpening of tooth face and tooth back. Optionally, the zero points can be set automatically with the sound sensor.



SPECIFICATIONS

BASIC INFORMATION BNP200 / 210:

| | |
|------------------|--------------|
| Tooth pitch | 10 - 100 mm |
| Tooth height | bis 30 mm |
| Front rake angle | 0 - 35° |
| Tooth Shapes | programmable |

BAND SAW BLADES BNP200 / 210:

| | |
|-------------------------|--------------|
| Blade width (Standard) | 75 - 360 mm |
| Blade width (Optional): | 30 - 360 mm |
| Blade length (Standard) | from 5300 mm |

GRINDING WHEEL / POWER BNP200:

| | |
|------------------------|----------------|
| Grinding wheel Bakelit | Ø 350 mm |
| Grinding wheel CBN | Ø 300 / 350 mm |
| Bore diameter BNP210 | Ø 32 mm |
| Peripheral speed | selectable |
| Grinding motor | 2,2 kW |
| Elektrischer Anschluss | 400V 3Ph N |
| Connected load | 3.6 kVA |
| Compressed air supply | 6 bar |

GRINDING WHEEL / POWER BNP210:

| | |
|------------------------|------------|
| Grinding wheel Bakelit | Ø 400 mm |
| Grinding wheel CBN | Ø 300 mm |
| Bore diameter | Ø 127 mm |
| Peripheral speed | selectable |
| Grinding motor | 9.0 kW |
| Connected load | 12.0 kVA |
| Compressed air supply | 6 bar |

NEW TOOTHING BNP210:

| | |
|-----------------|-------------|
| Tooth pitch | 15 - 50 mm |
| Tooth height | 5 - 30 mm |
| Blade thickness | max. 1.5 mm |

GRINDING PROGRAMS



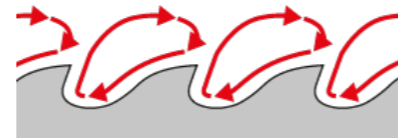
Grinding programme for standard and vario tootthing



Grinding programme for tooth face and tooth back



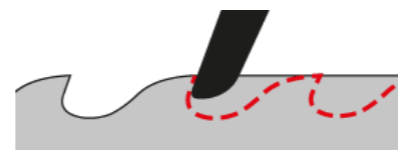
Grinding programme for winter tootthing



Grinding programme for several passages



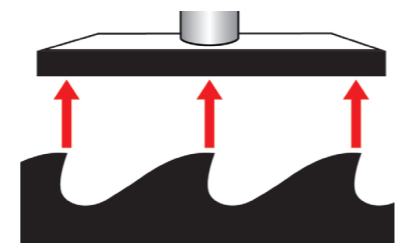
Automatic tracing at the tooth with vibration sensor (impact sound sensor)



Deep Grinding / New Tootthing



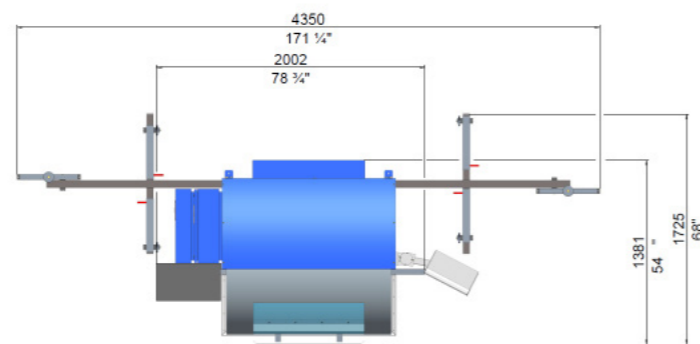
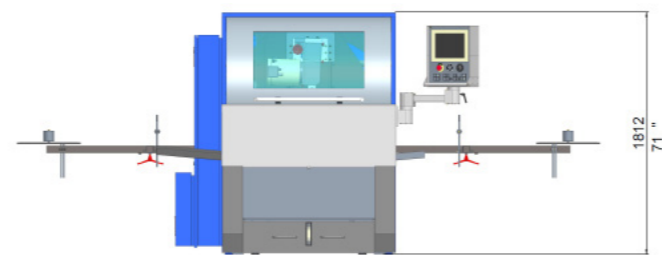
Automatic probing of the grinding wheel at the saw tooth



Automatic set up of the Saw blade

Automatic tooth profile scanning & construction „Tooth Tracing System“

SPACE REQUIREMENTS



HIGHLIGHTS

- The 3rd axis allows separate sharpening of tooth face and tooth back, improved technology particularly for stellite-tipped and carbide-tipped band saw blades.
- On the BNP210, the grinding-wheel is driven directly by a revolutionary water-cooled spindle motor (electric load up to 8 KW). High accuracy and performance!
- Excellent surface finish when using CBN grinding-wheels as well as bakelite grinding-wheels for wet grinding. The BNP200 is equipped with a large bakelite grinding-wheel of 350 mm in diameter.
- Profile-grinding of standard and Stellite-tipped band saw blades - by means of CNC axes „X“ & „Y“ (several complete cycles of the band saw blade) - by means of CNC axes „W“ & „Y“ (grinding of the positioned and clamped saw tooth)
- Top/Face-grinding of Stellite- and Carbide-tipped band saw blades by means of CNC axes „W“ & „Y“ (grinding of the positioned and clamped saw tooth)
- CNC controlled cutting angle Adjustment („S“ axis)
- Automatic electrically controlled saw blade height adjustment
- Operation of the machine by use of a touch screen monitor. 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. Special care was taken for an easy and efficient handling.
- Drive by means of servo motors
- Use of linear roller guides for all CNC axes (stiffer engineering and maximized lifetime)
- Pneumatic saw blade clamping, with force relief during feed
- Full-space cover with intensive water cooling
- „LINUX Debian 10“ control unit with multicore processor
- Operation via colored touch screen
- Tooth profiles retrievable via control unit (standard memory for 99'999 tooth profiles)
- Metric or Imperial measurement system selectable (mm or inch)
- CNC-axes and engine room neatly apart from the grinding-room. The accessibility of the maintenance elements and the separation between the machine area and working area make service and maintenance quicker and easier.



NEW HMI WITH TOUCHSCREEN

ISELI relies on the latest technology. The 12.1 inch touch screen offers maximum user comfort.

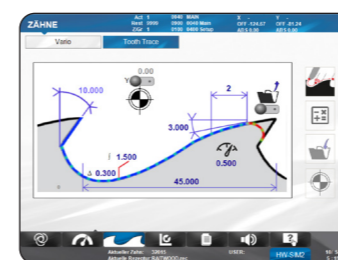
The integrated remote maintenance access and the active user management complement the functionality.



AUTOMATIC PROBING

The zero point of the tool can be determined automatically by probing the grinding wheels on the sawtooth.

The application is carried out with a sound sensor.



TOOTH TRACING SYSTEM (TTS)

The tooth shape can be scanned by means of a sound sensor and saved as a tooth shape. The data recorded is then used for sharpening in the recipe. Parameters such as clearance angle and tooth height are automatically determined and saved.



AUTOMATIC SET UP OF THE SAW BLADE

The tooth shape can be scanned by means of a sound sensor and saved as a tooth shape. The data recorded is then used for sharpening in the recipe. Parameters such as clearance angle and tooth height are automatically determined and saved.

OPTIONEN

- Grinding mist extraction / oil cooling with fire protection device and air cleaner
- Automatic probing of the grinding wheel at the saw tooth (sound sensor)
- Automatic tooth profile scanning & construction „Tooth Tracing System“
- CNC controlled dressing device for Corundum grinding wheels
- Saw blade height stop by means of limit switch / analog sensor
- Equipment for gang saws (gang saw carriage)
- Automatic set up of the Saw blade
- Automatic central lubrication
- Optical signaling device for process status recognition (3-color signal lamp)
- Additional LED light on grinding head
- Balancing device for grinding wheels
- Equipment for band saws (saw blade support, single stand, auxiliary back feed, loading system, double-cut, etc.)
- Remote maintenance
- Connections & preparations for an external cleaning system