



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



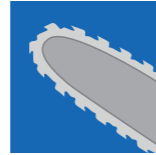
Sharpening solutions for circular saws



Sharpening solutions for hand tools



Sharpening solutions for industrial blades



Sharpening solutions for chain saws



Service



KHF 300

FULLY AUTOMATIC 7-AXIS-CONTROL SHARPENING MACHINE FOR THE COMPLETE MACHINING OF THE SIDE ANGLES OF CARBIDE-TIPPED CIRCULAR SAW BLADES



Subject to technical modifications



Technical data

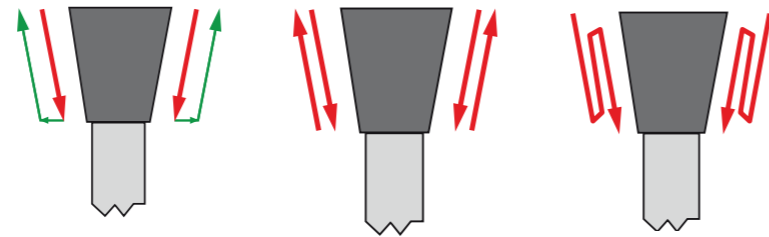
Tooth geometry:	freely programmable
Tooth pitch:	10* - 120* mm (*depending on blade parameters)
Blade thickness:	up to 8 mm
Tooth face clearance angle:	0° to 5°
Tooth back clearance angle:	0° to 5°
Circular saw Ø:	Ø 180 - 860 mm (without Robot) Ø 200 - 820 mm (with Robot)
Circular saw bore Ø:	Ø 22 - 200 mm Option: from Ø 15 mm
Cup grinding wheel Ø:	Ø 100 mm
Grinding wheel bore Ø:	Ø 32 mm
Grinding motor power:	1,5 kW
Power requirements:	400V 3Ph 50Hz, 6 kVA
Compressed air requirements:	6 bar

CNC axes KHF 300

X axis:	Feeder carriage
R axis:	Radius compensation
Y axis:	Lifting carriage head
Z axis:	Infeed to the side angle
T axis:	Automatic tangential angle adjustment
E axis:	Automatic radial angle adjustment
H axis:	Height adjustment (automatic feeding)
B axis:	Saw blade positioning for band saws

Grinding programmes

All grinding programs are programmable for every single side-grinding process. All common tooth forms are programmable.



Optimized grinding process with the least amount of removal

Optimized repeated grinding process for large amounts of removal

Oscillating grinding process - the economical solution for new production saw blades

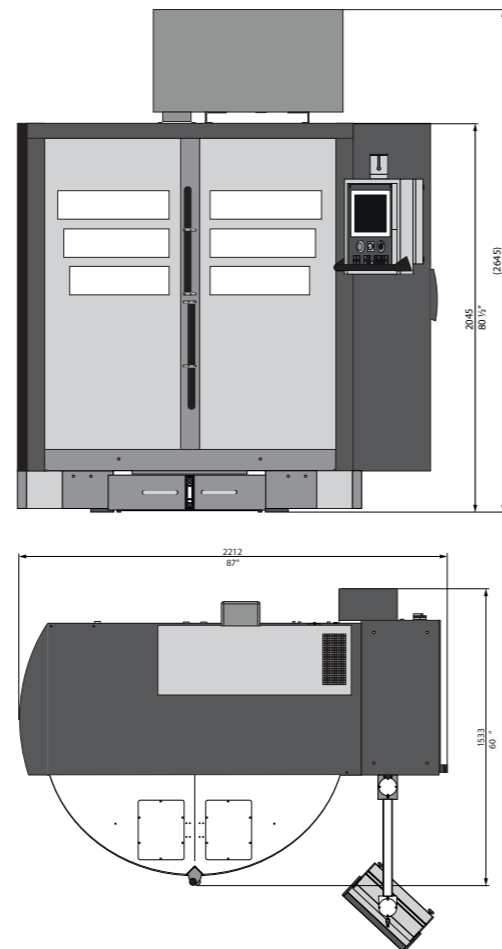
Measuring:

- Blade body and cutting width
- Side clearance rear/front
- Centricity
- Diameter

Sharpening modes:

- Symmetrical grinding starting from the center of the blade body
- Grinding based on automatic setting of tool zero points
- Grinding based on manual setting of tool zero point

Space requirement



Highlights

- Designed for the fully automatic processing of carbide-tipped circular saws
- Blade feed from right to left, including radius tracking
- The space-saving machine design allows for high ergonomics and excellent usability
- Easy access for maintenance work to the electrical cabinet, coolant pump, pneumatics and extinguishing systems
- Unlimited storage for circular saw parameters
- Optimal, fast and safe programming and setup of circular saw parameters
- The entire work process is programmed via the 7-axis CNC control system
- The positioned tooth can also be ground completely in several passes.
- Manual or automatic (using a probe) repair tooth recognition
- Measurement protocol of the side clearance and centricity offset
- Ready for the integration of a fully automatic loading system (robot)
- DIN EN ISO 12100:2013-08; Safety of machinery, general principles for design
- DIN EN 60204-1:2014-10; Safety of machinery, electrical equipment of machines
- DIN EN 13857:2008-06; Safety of machinery, safety distances
- DIN EN ISO 16089:2016-06; Tool machines, safety for stationary grinding machines

Technical components

- Ergonomically positioned control unit with color display
- Touch screen with Windows-based interface
- All axes are equipped with high-strength linear roller guides for guaranteed high stability
- Safe servo drives according to EN 62061 SIL3 / EN ISO 13849-1 PLc
- Electronic cabinet with integrated ventilation
- Measuring system for compensation of grinding wheel wear
- Automatic feeding and positioning of the circular saw
- Automatic probing of the grinding wheel on the carbide-tipped saw tooth with acoustic sensor
- Measuring system for fully automatic measuring of saw tooth and blade body
- System for the detection and positioning of Vario toothing, with integrated sensor cleaning system
- Redundant-monitoring automatic doors
- Optical signaling device for immediate detection of process status or malfunctions
- Powerful cooling system
- Oil-cooled machining system, including explosion protection cover and CO2 extinguishing device
- Extremely strong precision-clamping of the blades
- Pressure controlled pneumatic system
- Automatic central lubrication for reduced maintenance requirements
- Equipped with cleaning kit and a wide range of tools
- Automatic angle adjustment (T, E)