

**RACE**  
HERE RIGHT  
**NOW**

# Matrix NC

 **WINTERSTEIGER**  
Thinking about tomorrow.



# Matrix NC

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## Designed for racing

The way to the top almost always comes down to a very fine line. A line where success or failure can be measured in a fraction of an inch. Where hundredths of seconds determine victory or defeat. For the best skiers in the world, these advantages of hundredths of seconds are what decide whether they are the first to reach the pinnacle of success or not.

The Matrix NC race grinding machine creates structures and surfaces that let ski racers determine exactly who benefits from these hundredths of seconds. So they can take control over those fine margins that ultimately make all the difference.



Matrix NC

# Structuring for winning times



[wintersteiger.com/matrixnc](http://wintersteiger.com/matrixnc)

# The advantages:

- Adaptable to various needs thanks to modular construction
- Extensive configuration options
- Wide range of options available
- High-precision grinding force adjustment, either electronic or pneumatic
- Dynamic process for balancing grinding stones directly on machine
- Intuitive operation using integrated touch panel or external PC
- Integrated stone management
- Integrated level control for stone aggregate

## Nordic



- Equipped with choice of 1 x 70 mm (1 x 2.8"), 2 x 70 mm (2 x 2.8") or 1 x 150 mm (1 x 5.9") stone
- Comprehensive selection of stones and diamonds for Nordic requirements
- Stone available with twin structure (150 mm, 5.9" stone)
- Centerings adapted for Nordic
- Suitable for ski jumping

## Alpin



- 150 mm, 5.9" stone for Alpine
- Comprehensive selection of stones and diamonds for Alpine requirements
- Centerings adapted for Alpine
- Up to 16 substructures across the entire width of the stone
- Extensive structure pool available

# Variants and options



Function	Electronic control	Pneumatic control
Stone dimensions	1 x 70 mm (0.04 x 2.8"), 2 x 70 mm (0.08 x 2.8"), 1 x 150 mm (0.04 x 5.9") (selectable)	
Pneumatic centerings	0, 2, 3, 4 (selectable)	
V-centerings	0, 1, 2, 4 (selectable)	
Go-kart feed roller	Slick or tread (selectable)	
Rubberized feed roller	20° or 50° Shore (selectable)	

Options	Electronic control	Pneumatic control
Operation via touch panel	●	○
Operation via external PC	○	○
Integrated balancing system	●	○
Second foot pedal	●	○
Filling pressure control for go-kart	○	○
Electronic comfort package	○	
Pneumatic comfort package		○
Automatic stone cleaner	○	○
High-pressure pump	○	
Embossing device	○	○
Structure package	●	○
Profile / 3D structures	○	○
Simulation software for external PC	○	○
Hand-held scanner	○	○
Stone data management	○	○

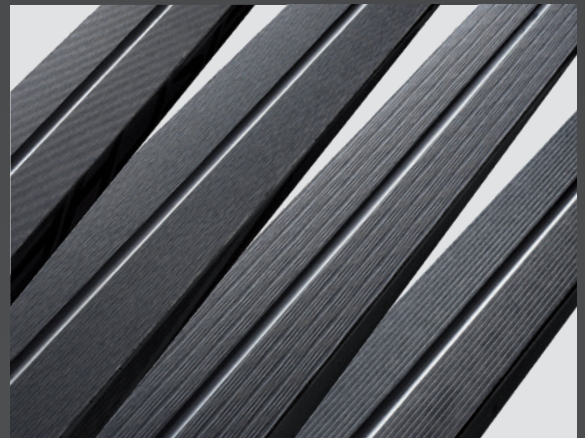
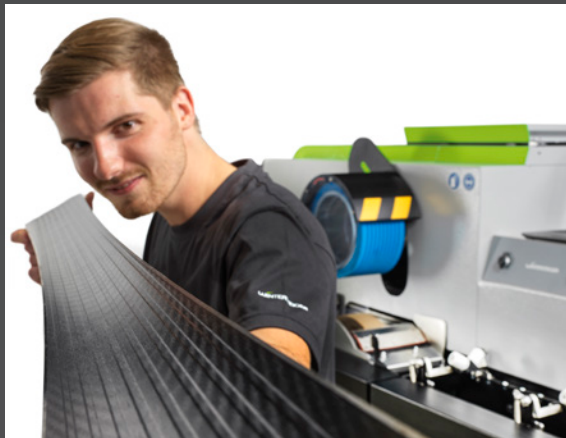
● standard, ○ option

# Highlights

Based on a wide range of optimizations relating to the mechanics, electronics, software, and ease of use, we have succeeded in taking the development of our base grinding machine for racing sports to the next level.

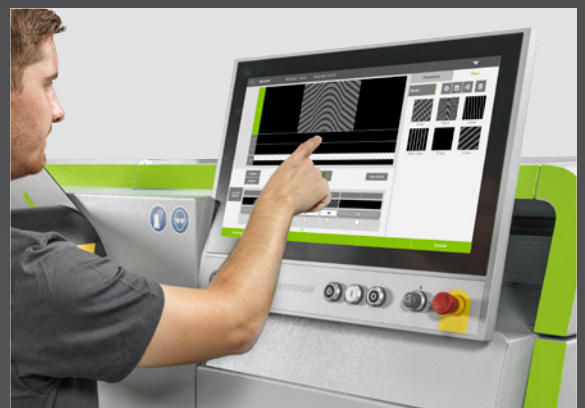
## High-performance structures

- High precision, precisely reproducible structures can be created on up to 3 levels
- Profile/3D structures are easy to create with integrated structure generator
- Up to 16 substructures can be generated across the entire width of the stone
- Existing Race NC programs can also be transferred over in addition to extensive Matrix NC structure pool



## Intuitive operation

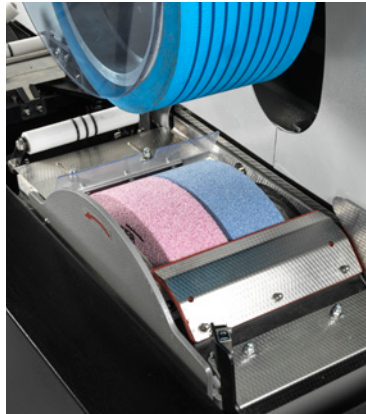
- Simple, intuitive operation using 21.5" touch panel
- Preview of structures in structure generator
- Two different user levels ensure safe operation by different users
- Help program makes stone changes and balancing easier





## Streamlined for precision

- The pair of lateral pressure levers can be precisely controlled along the entire length of the ski using both the electronic and pneumatic contact force control
- Automatic stone height adjustment ensures that the working height, distance between rollers, and pressure remain the same (optional with pneumatic variant)
- Integrated balancing system guarantees vibration-free grinding (optional with pneumatic variant)



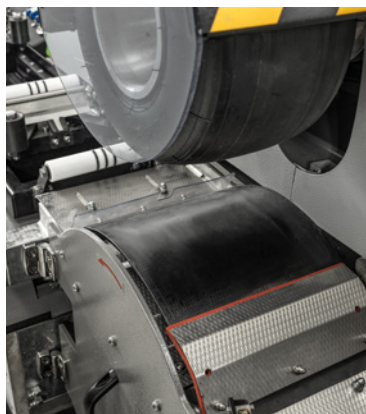
## Digital interfaces

- Structures and grinding programs can be easily created using simulations on an external PC or laptop and imported via USB or LAN
- The Matrix NC can be operated using a laptop if needed
- Optional stone management can be used to record structural and production data for each grinding stone
- Quick and easy access to grinding programs with hand-held scanner



## Very convenient to operate and maintain

- Stone cover ensures operator safety and prevents water escaping during dressing
- Stone is easy to access and change in just a few steps
- Measuring of the diamond can be precisely controlled using external button panel





## Precise and reproducible results

The optional cooling unit ensures a controlled temperature of the grinding water, so grinding results can be precisely reproduced at a consistent level of quality.



## Compatible with embossing rollers

Embossing rollers can be used to provide the finishing touch. The relevant programs and pressure curves can be saved and accessed as needed. Embossing rollers from other manufacturers can also be used.



You can find accessories for ski servicing here:



## Our partners from the racing sector

Our expertise in ski racing doesn't come from just anywhere. We have been a partner to associations, racing teams and ski manufacturers worldwide for many years and work together to develop ski service machines that bring success.



ALPINE CANADA ALPIN



ATOMIC

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DEUTSCHER SKIVERBAND

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HEAD®

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NORDICA

Offiziell leverandör  
OLYMPIATOPPEN

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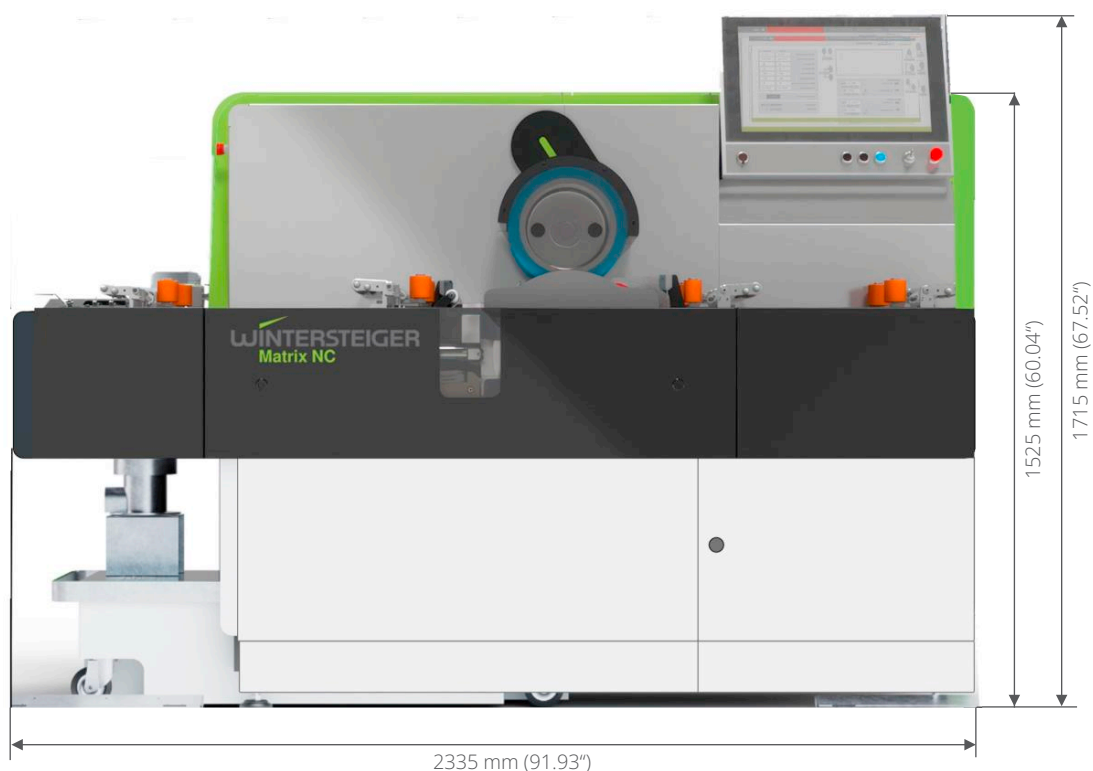
**S**  
salomon  
TIME TO PLAY

**A**  
Ski Austria

STÖCKLI  
THE SWISS SKI



**XX** Völkl



## Technical data

	Electronic feed	Pneumatic feed		
Rated voltage / frequency	3 AC, 208–400 V, 50/60 Hz	3 AC, 400 V, 50 Hz	3 AC, 208–220 V, 60 Hz*	3 AC, 220 V, 50 Hz*
Power	5.7 KW	5.7 KW		
Rated current	22.1–13.2 A	13.2 A		
Fuse min./max.	25 / 32	25 / 32		
Feed speed	3 – 20 m/min (9.8 – 65.6 ft/min)			
Ambient temperature	5°C – 35°C (41 °F – 95 °F)			
Screen	21.5" FullHD TFT 1920 x 1080 (16:9) multi-touch			
Weight (without contents of tank)	Approx. 980 kg (3215.2 lbs)			
Dimensions (W x H x D)	2335 x 1525 x 880 mm, 91.85 x 60.63 x 35" (without screen) 2335 x 1715 x 880 mm, 91.85 x 67.52 x 35" (with screen)			

\*Upon request. We reserve the right to make technical modifications.



Stone diameter	max./min. 350 / 295 mm (13.78 / 11.61")
Stone width	150 / 70 / 2 x 70 mm (5.9 / 2.8 / 0.08 x 2.8")
Grinding rpm	100 – 1200 rpm
Dressing rpm	200 – 2000 rpm
Contact pressure	50 – 500 N
Feed speed	3 – 20 m/min (9.8–65.6 ft/min)
Dressing speed	1 – 50 mm/sec (0.04–2.0 inch/s)
Tank volume	210 Liter (55.5 US gal.)
Noise emission	Approx. 74 dB(A)
Ski length	With pneumatic centering: from 1400 mm (55.1"), With V-centering: from 1200 mm (47.2")

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