







## CRYSTAL RACE

# THE ROBOT FOR RACING SKIS WITH IMPRESSIVE SERVICE RESULTS

The new CRYSTAL RACE robot automates racing service. The high quality grinding results are achieved by a series of components developed specially for racing service. All parameters for the service are entered on a large 15" display with intuitive user guidance.

The cut with multiple VARIO structures is made using a 200 mm wide stone in the absolutely reproducible MONTANA quality. This creates the perfect conditions for optimally adapting the gliding characteristics to all conditions.

The GRIPtech system is standard for side edge grinding, optionally available with RACE EDGE aggregate.

3D-RADIAL Tuning including PRO-technology is performed with a 350 mm tuning ring at high precision and perfect MONTANA-RACE quality. This produces a perfectly race-optimized edge.

The CRYSTAL RACE can also be equipped with automatic loading if desired.

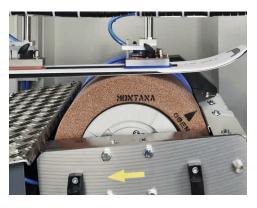
A robot whose results impress the racing pros.

#### **ADVANTAGES**

- Large 15" touch display with intuitive navigation
- PRO-technology for base conserving grinding even in the shovel and end area
- PowerVac system for suction of all ski surfaces
- Automatic stone grinding for 1 ski with pressure curve and computercontrolled speed curve
- Multiple VARIO structures
- GRIPtech system for double-sided edge grinding
- 3D-High-Tech-Tuning (HTT) with PRO-technology
- Freely programmable radial tuning
- NC drives for the dressing units of the stones and tuning discs: highest precision at high speeds
- Integrated remote maintenance
- Ready for "Montana Digital World"

#### **OPTION**

- 3D structures
- Pair loading
- Compressor with refrigeration dryer
- RACE EDGE unit
- Oil mist suction system
- Gravitational filter system
- Automatic cooler









### **BASE GRINDING**

- Grinding of all ski models, snowblades and cross-country skis with all bindings
- Computer-controlled grinding programs with direct online access for individually adapting the most important parameters to each ski
- MONTANA PRO-technology: electronically controlled force curve for precisely defined grinding pressure over the grinding point
- Reproducible grinding results thanks to fully automated rpm adjustment to the diameter of the grinding disc
- 8-fold VARIO structures



## GRINDING SIDE EDGES WITH GRIPTECH

- Side edges with GRIPtech system for a precise, sharp, and durable edge.
- Easy 87°– 89° edge angle adjustment in 0.5° steps
- Programmable aggregate closing time
- Electronically controlled pressure curves ensure precision aggregate contact with the ski/snowboard.
- Vertical grinding provides a particularly beneficial sharpness and edge shape (microstructure).

#### **RADIAL TUNING**

- High-Tech-Tuning (HTT) ensures a finely polished edge with a minimal tuning angle for best gliding and turning capabilities for skis
- 3D-High-Tech-Tuning (HTT) for variably adjustable tuning angle
- Electronically controlled cutting speed
- MONTANA PRO-technology: Electronically controlled pressure and force curves for precisely defined grinding pressure over the grinding point

- Manual loading
- Colour touch screen display
- Automatic centring
- PowerVac suction system for every ski surface
- Option: Pair loading



- Fully graphic colour touch display with new, intuitive navigation for quick and easy access to all functions
- Network-enabled PC control with Windows Embedded 7

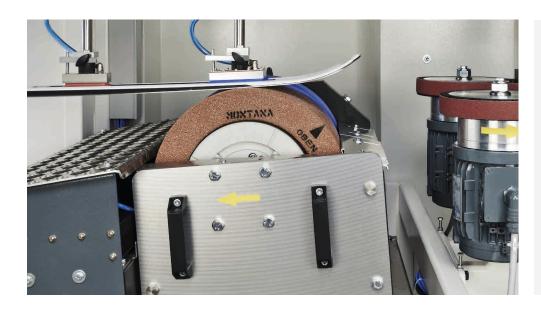


## PRO-TECHNOLOGY

## OPTIMAL FOR ROCKER SKIS

With this development grinding is controlled even more precisely – and can even grind the shovel and the tail. The resulting structures are outstanding.

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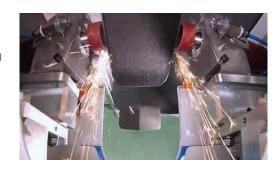
## RACE EDGE TECHNOLOGY

## FOR THE PERFECT RACE FINISH

This optional unit was developed for the perfect race finish of the side edges.

The side edges are polished using polishing discs at 15.000 rpm and by pressure curve.

This side edge fascinates all skiers having highest demands.



#### ADVANTAGES FOR RACE EDGE TECHNOLOGY

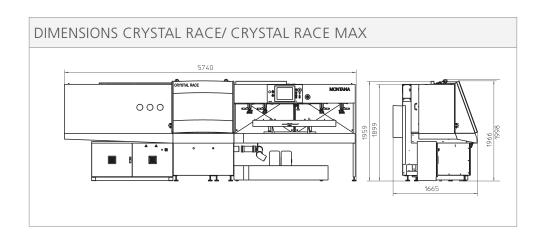
- Burr-free polishing
- Ski is ready for racing
- Angle adjustment in steps of 0.5°
- Function areas of the ski are polished as well
- Uniform polishing result
- Revolution 15.000 rpm
- Programmable closing times
- Programmable pressure curves for defined pressure at the pressure point



## 3D STRUCTURES

THREE-DIMENSIONAL RUNNING BASE GRINDED WITH STRUCTURES!
THE FUTURE OF GLIDING!





TECHNICAL DATA	CRYSTAL RACE	CRYSTAL RACE MAX
Product variations:	manual loading & manual shuttle adjustment	manual loading & automatic shuttle adjustment
Option:	_	pair loading
Rated power:	max. 7 kW	max. 7 kW
Voltage:	3 x 400 volt / 50/60 Hz, special voltage via trafo	
Fuses:	3 x 16 A	3 x 16 A
Coolant tank volume:	250 liters	
Stone width:	200 mm	
Stone speed:	300 to 1.900 u/min	
Cutting speed:	6 to 32 m/s	
Compressed air:	min. 6 bar, 600 l/min	
Total weight:	1.950 kg without coolant mixture	2.100 kg without coolant mixture