

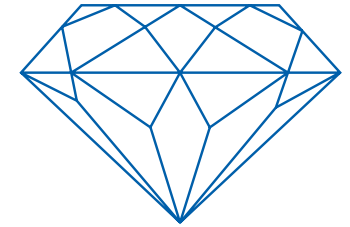
2

3

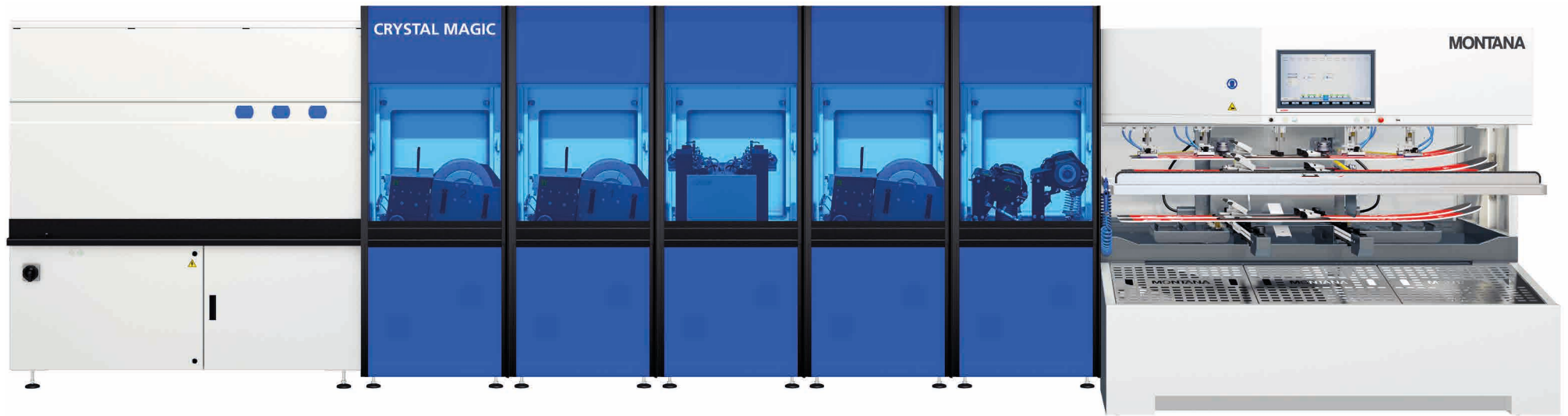
4

5

MONTANA[®]
CRYSTAL GLIDE FINISH



CRYSTAL MAGIC 5 MODULES



MONTANA

 45 / h

CRYSTAL MAGIC

INGENIOUS ROBOT SYSTEM FOR PREMIUM SKIS AND SNOWBOARDS

The new CRYSTAL MAGIC robot with a high hourly output was developed specifically for shops with medium to high ski service volumes.

The robot features an impressive technology of the highest level with unbeatable modularity: 19 base versions for an optimal configuration to meet the needs of the shop. The wide stone makes the CRYSTAL MAGIC the optimal solution for working on skis and snowboards by robot. Available with 1 or 2 stones.

The system comes standard with PRO-technology. It delivers particularly gentle grinding for all ski and snowboard models, particularly rockers – including grinding the shovel and tail.

The new GRIPtech system for the side edge provides a leap in quality in ski and snowboard service: creating a precise, sharp, and durable RACE EDGE quality edge. Together with radial tuning it delivers an edge with unique properties.

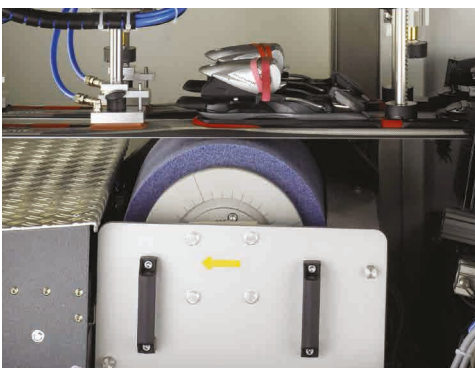
To improve glide, choose between traditional wax and polish aggregate and the WinTheRace covering process. This turns CRYSTAL MAGIC into a full service robot.

ADVANTAGES

- 21" touch display with intuitive navigation
- Automatic length and width measurement
- Automatic stone grinding with pressure curve for 1 pair of skis or 1 snowboard with servo pressure control
- PRO-technology for grinding with the highest possible precision – it is possible to grind the shovel as well as the end of the ski.
- GRIPtech system for double-sided edge grinding
- Ski or snowboard edge grinding with programmable pressure curve. Automatic correction for ski tip and tail available
- High-Tech-Tuning (HTT) edge coating for skis & snowboards
- High-Tech-Tuning (HTT) with PRO-technology for skis
- Radial Tuning
- Racing ski mode with speed curve meets world cup standards
- Integrated remote service module
- Efficient and space saving
- Ready for „Montana Digital World“

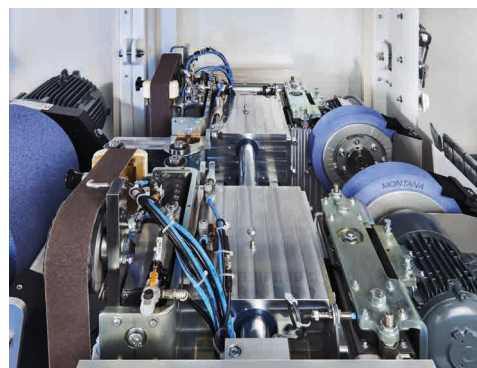
OPTION

- Belt filter system
- Compressor with drying system
- Oil mist suction system
- Electric or pneumatic dressing tool advancing
- Wax or WinTheRace aggregate
- Automatic cooler



BASE GRINDING

- Grinding of all ski models, snowblades and cross-country skis with all bindings
- 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
- Vario structures with speed curve
- 10 steps dressing tool advance of 0.5/100 - 6/100 mm, pneumatically controlled



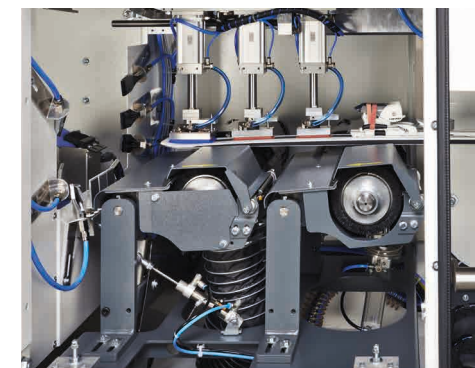
GRINDING SIDE EDGES WITH GRIPTECH

- 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).



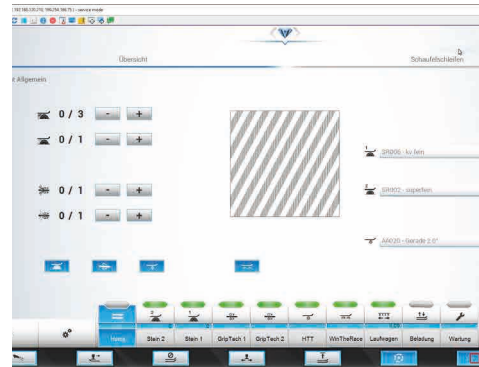
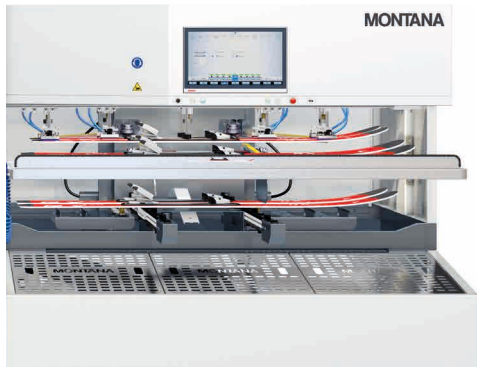
RADIAL TUNING

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



TRIED AND TESTED AUTOMATIC WAXING 2-STEP WAX SYSTEM

- Wax application with heated waxing roll
- Fast and effective infrared heating
- Polishing with separate brush
- Option: WinTheRace covering



LOADING, FULLY AUTOMATIC OUTPUT

- Automatic ski length recognition
- Automatic suction plate adjustment
- Automatic centring
- Automatic loading and unloading via magazine for up to 4 pairs of skis with bindings
- PowerVac suction system for every ski and snowboard surface

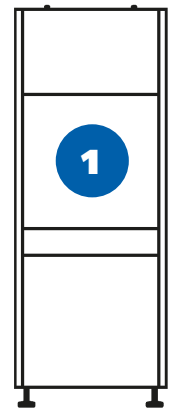
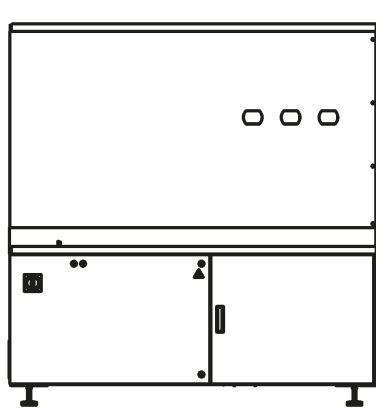
- Fully graphic colour 21" touch display with new, intuitive navigation for quick and easy access to all functions



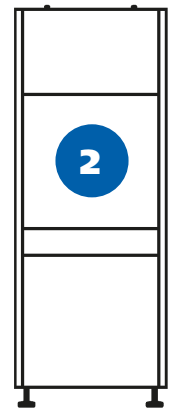
CRYSTAL MAGIC CONFIGURATIONS

Our new modular system can be summarised in 5 machine sizes.
These offer lots of different versions. Your requirements are key!

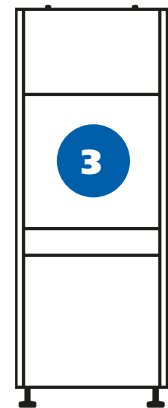
- ✓ Will you be grinding customer or rental skis?
- ✓ How big is the shop?
- ✓ Will you be grinding skis & snowboards?



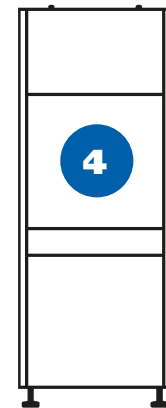
1. Stone



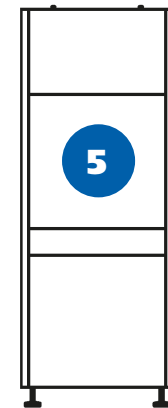
2. Stone



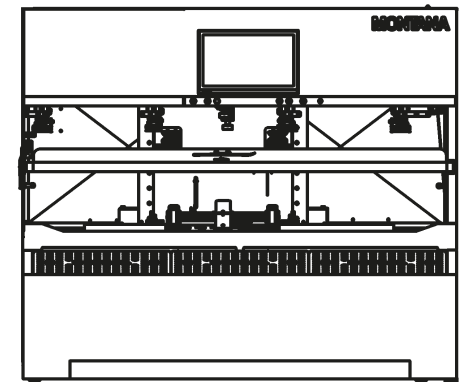
1 x GRIPtech (single)
2 x GRIPtech (dual)
GRIPtech with 3D-Tuning (Snowboard + Ski)



Tuning pairs of skis



Waxing
WinTheRace



BASIC CONFIGURATIONS

AVAILABLE OPTIONS

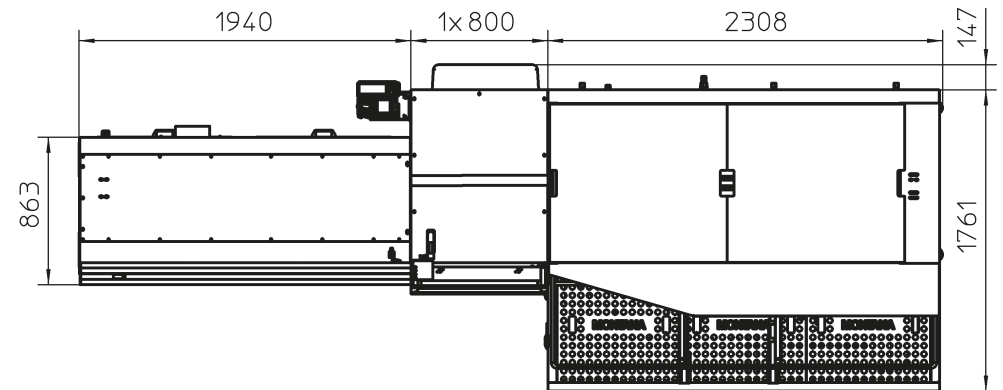
Filtration	(1) Filter tank		(2) Filter sleeve
Stone dresser	Pneumatic	or	Electronic
Vacuum pump	16 m³/h	or	20 m³/h
Oil mist filter			

1 MODUL	Stone ⁽¹⁾ ⁽²⁾				
2 MODULES	Stone ⁽¹⁾ ⁽²⁾		GRIPtech/ 3D-Tuning		
3 MODULES	Stone ⁽¹⁾		1 x GRIPtech	Tuning pairs of skis	
	Stone ⁽¹⁾		2 x GRIPtech	Tuning pairs of skis	
	Stone ⁽¹⁾ ⁽²⁾		GRIPtech/ 3D-Tuning		Waxing
	Stone ⁽¹⁾ ⁽²⁾		GRIPtech/ 3D-Tuning		WinTheRace
	Stone ⁽¹⁾	Stone ⁽¹⁾	GRIPtech/ 3D-Tuning		
4 MODULES	Stone ⁽¹⁾		1 x GRIPtech	Tuning pairs of skis	Waxing
	Stone ⁽¹⁾		1 x GRIPtech	Tuning pairs of skis	WinTheRace
	Stone ⁽¹⁾		2 x GRIPtech	Tuning pairs of skis	Waxing
	Stone ⁽¹⁾		2 x GRIPtech	Tuning pairs of skis	WinTheRace
	Stone ⁽¹⁾	Stone ⁽¹⁾	1 x GRIPtech	Tuning pairs of skis	
	Stone ⁽¹⁾	Stone ⁽¹⁾	2 x GRIPtech	Tuning pairs of skis	
	Stone ⁽¹⁾	Stone ⁽¹⁾	GRIPtech/ 3D-Tuning		Waxing
	Stone ⁽¹⁾	Stone ⁽¹⁾	GRIPtech/ 3D-Tuning		WinTheRace
5 MODULES	Stone ⁽¹⁾	Stone ⁽¹⁾	1 x GRIPtech	Tuning pairs of skis	Waxing
	Stone ⁽¹⁾	Stone ⁽¹⁾	1 x GRIPtech	Tuning pairs of skis	WinTheRace
	Stone ⁽¹⁾	Stone ⁽¹⁾	2 x GRIPtech	Tuning pairs of skis	Waxing
	Stone ⁽¹⁾	Stone ⁽¹⁾	2 x GRIPtech	Tuning pairs of skis	WinTheRace

COMBINATION OPTIONS

THE ROBOT – IN THE SIZE TO FIT YOUR SHOP!

2 sizes are consistent – the rest is flexible! The 1,940 mm control unit and the 2,308 mm loader have a fixed size, but the size of the actual robot varies by the number of modules! Each processing module is 800 mm in size.

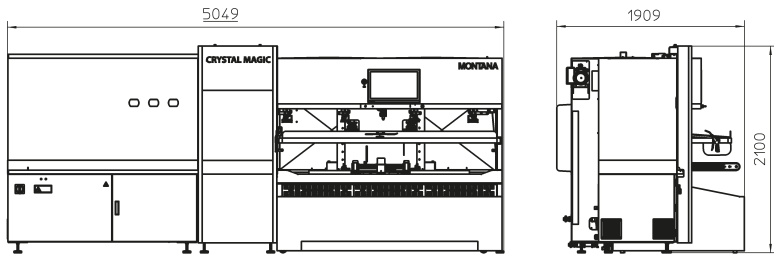


BASE UNIT TECHNICAL DATA	
Base power:	1.5 kW
Base weight:	2,025 kg
Voltage:	3 x 400 volt / 50/60 Hz, transformer for special voltages
Fuse:	3 x 35 A
Tank capacity:	600 L
Stone width:	320 to 340 mm
Stone speed:	300 to 1,900 rpm
Cutting speed:	6 to 32 m/s
Feed:	5 to 30 m/min
Compressed air:	min. 6 bar 1,100 L/min

MODULES TECHNICAL DATA					
	Stone/HTT	1 x GRIPtech <i>(single)</i> 2 x GRIPtech <i>(dual)</i>	GRIPtech with 3D tuning	Waxing	WinTheRace
Power:	5.0 kW	3.5 kW	3.5 kW	5.0 kW	3.0 kW
Module weight:	580 kg	575 kg	615 kg	550 kg	445 kg

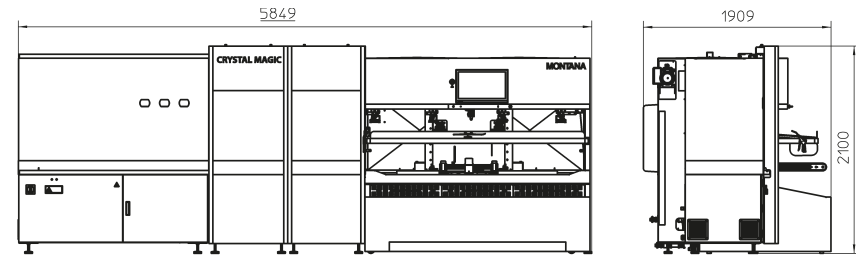
Machine length with 1 modul

5.049 mm



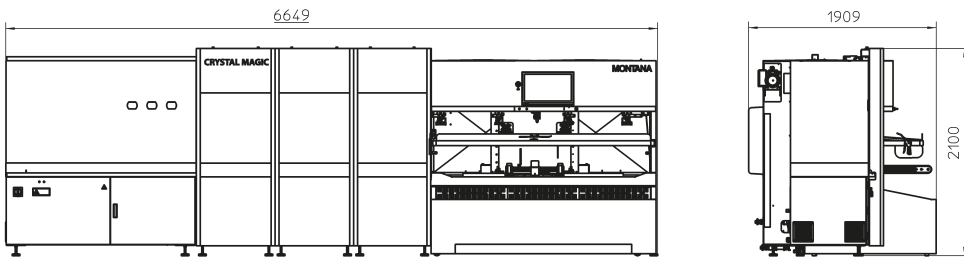
Machine length with 2 modules

5.849 mm



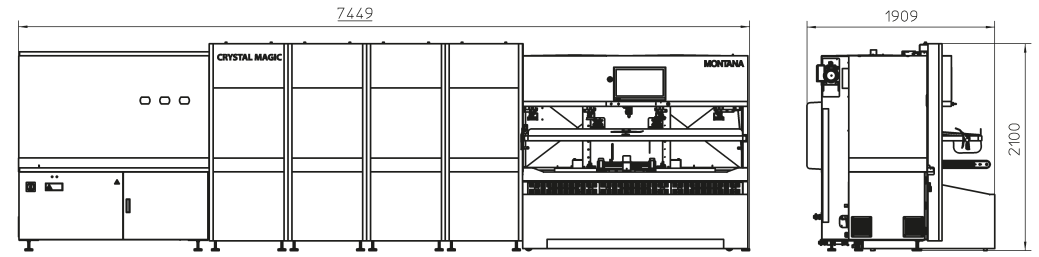
Machine length with 3 modules

6.649 mm



Machine length with 4 modules

7.449 mm



Machine length with 5 modules

8.294 mm

