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# 1 Foreword

These operating instructions must be read by operating personnel and those responsible for machine maintenance before initial use and serves as a supplement to the training documentation.

Damage caused by failure to follow the instructions herein will not be covered by the warranty. The user of this machine is legally bound to observe the accident prevention regulations of the country in question.

Furthermore, these operating instructions shall be treated confidentially. Only authorized persons shall be allowed access to it. It shall only be entrusted to third parties on written permission from WINTERSTEIGER.

All documents are protected under copyright. Distribution, reproduction and utilization of documents and parts thereof, as well as communication of its contents, are not permitted unless authorized expressly and in writing.

Infringements are liable to prosecution and will result in damage claims. WINTERSTEIGER shall retain all rights to exercise industrial property rights.

## 1.1 Proper use

The machine was manufactured exclusively for normal use during ski service work (intended usage). Any other use is considered inappropriate. The manufacturer is not liable for any damage resulting from inappropriate use. The user takes full responsibility in such cases.

Appropriate usage also includes following the operating, maintenance and service stipulations set out by the manufacturer. The applicable accident prevention regulations and other generally accepted safety and occupational health regulations shall also be adhered to.

In case of unauthorized changes to the machine, the manufacturer will not be liable for any resulting damage.

We constantly try to improve our products and therefore reserve the right to make any changes or improvements we feel are appropriate. We are, however, not obligated to extend these changes or improvements to already delivered machines or devices.

All images, dimensions and weight specifications in the operating instructions are non-binding.

## Original operating instructions

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The logo for Wintersteiger, featuring a stylized green and yellow mountain peak above the word "WINTERSTEIGER" in a bold, sans-serif font.

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## 2 General information

### 2.1 Explanation of the symbols used in the manual



**DANGER** indicates a hazard with a high degree of risk, which, if not prevented, will cause death or serious injury.



**WARNING** indicates a hazard with a medium degree of risk, which, if not prevented, could cause death or serious injury.



**CAUTION** describes a hazard with a low degree of risk, which, if not prevented, could result in a slight or moderate injury.



This exclamation mark indicates possible damage to / destruction of the product, the process and/or its surrounding area.



This symbol indicates special information on practical work or a general recommendation.

This operating manual is a component part of the machine. Therefore, suppliers of new and second hand machines are required to confirm in writing that this operating manual was supplied with the machine. This operating manual helps users to familiarize themselves with the machine and to work with it.

The service/maintenance section contains tips on how to keep the machine fully operational for many years. The operating manual also points out (potential) dangers.

#### 2.1.1 Explanation of abbreviations

The following abbreviations are used in these operating instructions:

SEG = Side edge grinding aggregate

## 2.2 Safety information

### 2.2.1 Safety basics

- This machine is constructed using state-of-the-art technology according to accepted safety regulations. However, dangers for the user or third parties as well as damages to the machine and other objects can occur if:
  - the device is used by untrained or unauthorized personnel,
  - the device is used for inappropriate purposes,
  - the device is not properly maintained or repaired.

### 2.2.2 General safety information

- Disconnect the power each time that the location is changed or when manipulating the machine.
- Only use the machine in dry rooms.
- Set the machine on an even surface.
- Setup the machine in such a way that the main switch can be activated at any time.
- The service door key is to be kept by the person responsible for the machine.
- Ensure that the supply voltage is correct. See the type label for the connected load. Check whether these specifications match the power supply voltage.
- The machine may only be operated with original WINTERSTEIGER parts and expendable items. Any use of foreign material shall be at the risk of the owner/operator and will invalidate the machine warranty. This applies especially to the grinding emulsions and machine cleaners.
- Good ventilation and exhaust must be provided due to the high humidity, which is generated by the grinding process!
- A non-slip floor (rubber mats) reduces the risk of slipping in the vicinity of the machine.
- Note the resultant risk of tripping over the foot pedal when emptying the coolant tank.

### 2.2.3 Transport safety information

- During transportation work, a safety helmet, safety shoes and protective gloves must be worn.
- Never step beneath suspended loads.
- For transportation to the installation location, only appropriate, standardised and checked lifting devices (fork-lift truck, mobile crane, gantry crane) and load-securing devices (round slings, sling bands, slinging rope, chains) shall be used.
- Always observe the maximum lifting loads when selecting the lifting equipment and the lifting accessories!
- Dimensions and weights can be found in the technical data.
- Always ensure that the machine is transported without hitting or bumping into anything.
- Follow the pictograms on the packaging.
- Report any transit damage and/or missing parts to the supplier without delay.
- Only attach transportation crates and transport cradles at the attachment points marked.
- Always secure transport loads against drops and overturns!
- Remove the transport safeguards only after installation!

### 2.2.4 Safety information for the operator (owner)

- In addition to the accident prevention and occupational protection regulations applicable in the country of use and operating location, please also be aware of the applicable professional rules for safety and technically appropriate operation.
- The owner/operator must ensure that operating personnel wear personal protection equipment.
- First-aid equipment (first-aid kit, etc.) should always be within reach! Make information about the location and the operation of fire extinguishing equipment available. Fire alarms and fire fighting options must be available.
- The owner/operator of the machine must not make any changes, additions or modifications to the machine that may affect safety without authorization from WINTERSTEIGER.
- Only use trained or authorized personnel. The persons responsible for operating, setting up, maintaining and servicing the machine shall be clearly specified. Appoint a machine manager who has responsibility for the machine and the staff. Persons who are being trained or instructed in any way or who are undergoing a general apprenticeship may only work on the machine under constant supervision from experienced, trained personnel.

### 2.2.5 Safety information for operating personnel (user)

- The operating manual must always be within reach at the machine's installation site.
- Any applicable accident prevention specifications and other generally accepted safety and medical regulations are to be obeyed.
- The machine shall only be used if it is in a technically sound condition and is used appropriately and safely, under consideration of the dangers and under observance of this operating manual. Faults that may affect safety must be immediately repaired!
- The operator is obligated to wear personal protective equipment!
- When working with the machine, wear only tightly fitting clothing. Cover long hair with a hair net or other suitable protection.
- Follow the activation and deactivation processes and observe the emergency-off procedure in accordance with the operating manual for all work related to operating, refitting and setting the machine and its safety equipment.
- Please observe the mandatory safety measures for inspection, maintenance and repair of the machine!
- The warning and information signs on the machine provide important information on operating the machine in a safe manner. This information shall be followed for your safety.
- The machine may be operated only with completely attached guards and covers.

### 2.2.6 Operating safety

- The machine may only be operated by trained personnel.
- The machine must not be operated by several people at the same time.
- The machine may be put into operation only when assembled and ready for operation.
- The machine must be operated only if all protection devices and safety-related equipment, such as detachable safeguards and covers, are available and are functioning!
- Check the machine for visible damage and defects at least once per shift! Report any changes (including changes to operational behavior) to the responsible person/office immediately! Immediately stop and secure the machine!
- Never leave the machine unattended during operation!
- On leaving the machine, the operating personnel must always switch it off and secure it against being turned on by unauthorized persons.
- Do not operate the machine near flammable materials!
- Please wear appropriate work clothes:
  - long sleeved outerwear
  - long trousers
  - protective gloves made from suitable material
  - protective goggles
  - hair net
- Do not touch rotating parts during operation!
- Do not reach into running equipment!

### 2.2.7 Safety information for maintenance, servicing and troubleshooting

- Please adhere to the mandatory periods or periods listed in the operating instructions for recurring tests/inspections.
- All maintenance and servicing activities are only permitted if the main switch is switched off. Manual contacts with the running machines are banned! This can result in serious accidents. The machine must only be switched on while these activities take place during permissible operating modes and by adhering to special safety measures.
- Dispose of operating agents, auxiliary materials and replacement parts safely and in an environmentally-friendly way.
- Workshop equipment suitable for the task is essential for carrying out maintenance and repair work. Clean oil, operating agents, dirt etc. from the machine, and from connections and threaded joints in particular, before maintenance/repairs. Aggressive detergents must not be used. When carrying out maintenance and servicing work, all screw connections which have been undone must be screwed tight again with the required torques.

### 2.2.8 Safety when working with electricity

- Ensure that the supply voltage is correct. See the type label for the connected load. Check whether these specifications match the power supply voltage.
- Use only the approved mains cable provided by WINTERSTEIGER to connect the machine to an earthed wall socket.
- In the event of an electrical system malfunction, switch off the machine immediately using the main switch.
- Work on the machine's electrical system must be carried out by a qualified electrician in line with accepted practices! Only qualified electricians are permitted access to the machine's electrical systems and may perform work on them. Always keep the switch cabinets locked when they are unattended.
- Proper earthing of the electrical system must be ensured by means of a protective earth conductor.

### 2.2.9 Safety when working with pneumatics

- Work on pneumatic equipment may only be carried out by qualified, skilled personnel with special knowledge and experience in this field.
- Regularly check all lines, hoses and connections for leakage and visible external damage! Damaged parts must be replaced immediately.
- Sections of the system and pressure lines which are to be opened must be depressurized before repair work is begun.
- Hands must be kept away from the machine components after the compressor has been switched on. The generated service pressure can cause the pneumatic cylinders to shift in the basic position when air flows into the pneumatic cylinder.

## 2.3 Warnings

 **CAUTION** Risk of injury!

Regular checks must be made to ensure that the warning labels are still attached to the machine. Illegible or missing warning labels must be replaced immediately. Available from WINTERSTEIGER; please quote the order number.



Wear protective goggles!  
Order number: 78-150-095



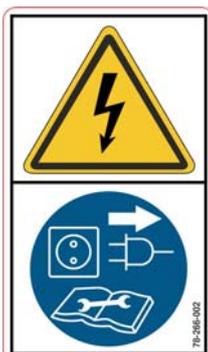
Wear gloves!  
Order number: 78-150-678



Wear protection: close-fitting protective clothing



The operating manual and the safety information must be read and observed before commissioning the machine.  
Order number: 78-266-001  
Order number for CSA version: 78-166-001



Disconnect the power before opening the device.  
Order number: 78-266-002  
Order number for CSA version: 78-166-002



Mixing ratio:  
see data on emulsion container!

Order number: 78-266-013



The abrasive belt must be relaxed while the machine is stationary!

Order number: 78-266-022

Order number for CSA version: 78-166-022

## 2.4 Safety devices

- Do not remove any safety devices or covers during operation.
- The coolant tank must be pushed into the machine housing as far as the limit stop.

## 2.5 Intended use

The Omega B machine is exclusively designed for base grinding, base edge grinding, cold waxing and edge deburring of skis and snowboards. The grinding of side edges is also possible with the SEG option (intended use). Any other use is considered inappropriate.



**Failure to observe these instructions releases WINTERSTEIGER from any and all liability for damage incurred.**

## 2.6 Function

- Ski or snowboard - entry by hand, with the tip or end ahead.
- Belt sanding for absolutely flat and fibre-free base.
- The machine can also be equipped with a side edge grinding aggregate.
- In case of skis with bindings, the ski brakes must be fixed in the folded-up position and the skis must be provided with a binding bridge.
- Uniform transport of the ski with automatic feed.

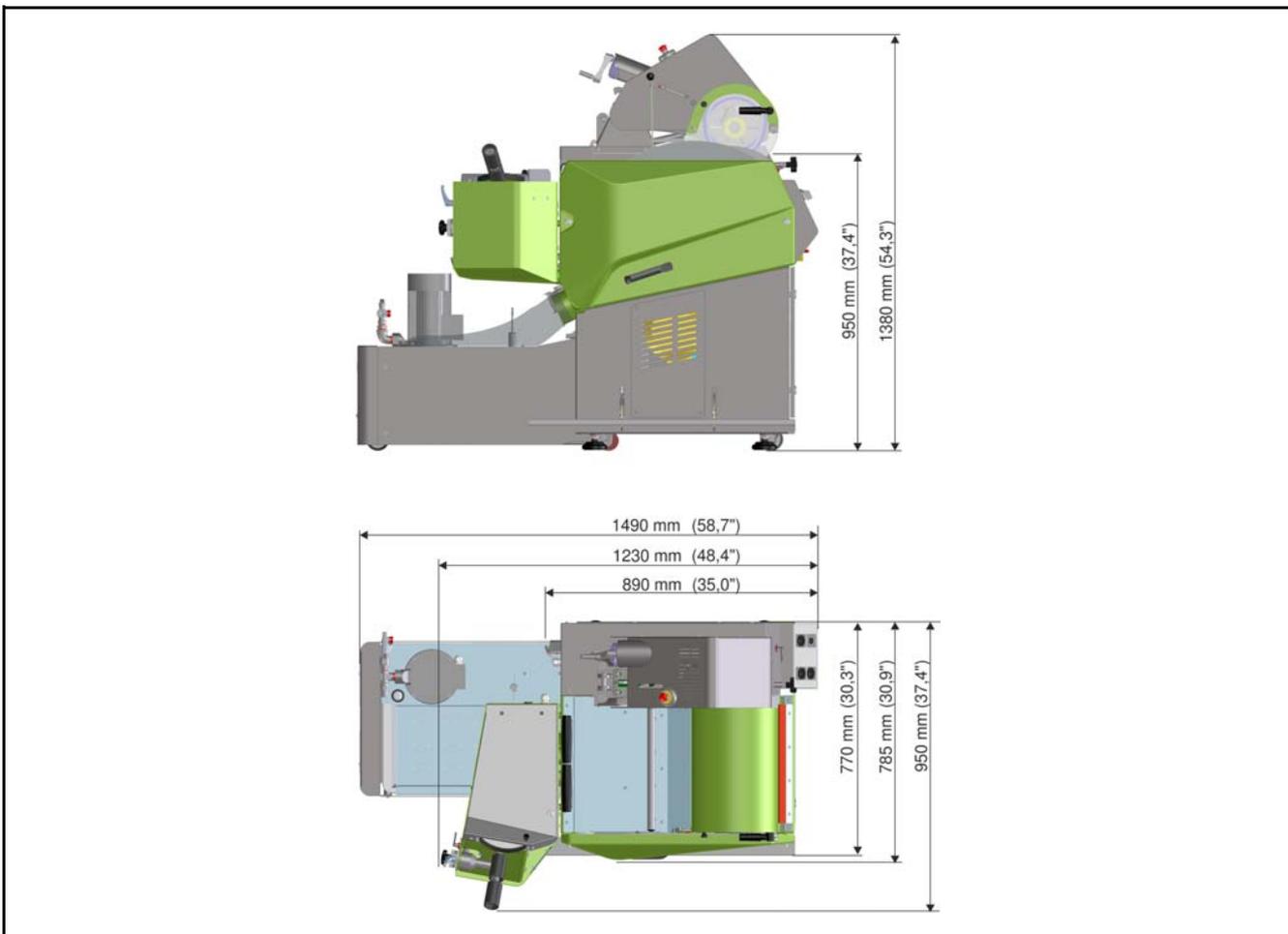
### 3 Technical specifications

<b>Type: Omega B - belt aggregate</b>	
Rated voltage, frequency, power, rated current, fuses min.-max.:	3/N AC 400-415 V; 50 Hz; 4.0 kW; 8.1 A; 16-20 A (CE) 3 AC 208-220 V; 50 Hz; 4.0 kW; 14.7 A; 20-25 A (CSA) 3 AC 208-220 V; 60 Hz; 4.7 kW; 14.3 A; 25-25 A (CSA) 1 AC 208-230 V; 60 Hz; 3.86 kW; 19.5 A; 25-25 A
Weight (tank empty):	320 kg (705 lbs)
<b>Type Omega B - belt aggregate + feed</b>	
Rated voltage, frequency, power, rated current, fuses min.-max.:	3/N AC 400-415 V; 50 Hz; 4.4 kW; 10.1 A; 20-25 A (CE) 3 AC 208-220 V; 50 Hz; 4.4 kW; 16.7 A; 20-25 A (CSA) 3 AC 208-220 V; 60 Hz; 5.3 kW; 16.3 A; 25-25 A (CSA) 1 AC 208-230 V; 60 Hz; 4.2 kW; 22 A; 25-25 A
Weight (tank empty):	370 kg (816 lbs)
<b>Type Omega B - belt aggregate + SEG</b>	
Rated voltage, frequency, power, rated current, fuses min.-max.:	3/N AC 400-415 V; 50 Hz; 4.5 kW; 9.2 A; 16-20 A (CE) 3 AC 208-220 V; 50 Hz; 4.5 kW; 16.7 A; 20-25 A (CSA) 3 AC 208-220 V; 60 Hz; 5.1 kW; 16.4 A; 25-25 A (CSA) 1 AC 208-230 V; 60 Hz; 4.6 kW; 23 A; 25-25 A
Weight (tank empty):	355 kg (783 lbs)
<b>Type Omega B - belt aggregate + feed + SEG</b>	
Rated voltage, frequency, power, rated current, fuses min.-max.:	3/N AC 400-415 V; 50 Hz; 4.9 kW; 11.2 A; 16-20 A (CE) 3 AC 208-220 V; 50 Hz; 4.8 kW; 18.7 A; 20-25 A (CSA) 3 AC 208-220 V; 60 Hz; 5.5 kW; 18.3 A; 25-20 A (CSA) 1 AC 208-230 V; 60 Hz; 4.9 kW; 25 A; 25-25 A
Weight (tank empty):	405 kg (893 lbs)
<b>The correct connection voltage is displayed on the type label!</b>	
<b>Dimensions</b>	
Dimensions:	See illustration
Water tank volume:	80 liters (21 gal)
Belt dimensions:	350 x 1600 mm
SEG belt dimensions:	20 x 1200 mm
<b>Belt station</b>	
Grinding speed belt	Level 1/2 (50Hz): 540/1080 U/min Level 1/2 (60Hz): 645/1290 U/min
Grinding speed belt USA version 1x208-230V; 60 Hz:	830 U/min (only one belt speed)
<b>Feed</b>	
Feed speed infinite:	5 - 20 m/min
Feed contact pressure:	140 - 450 N
<b>Other data</b>	

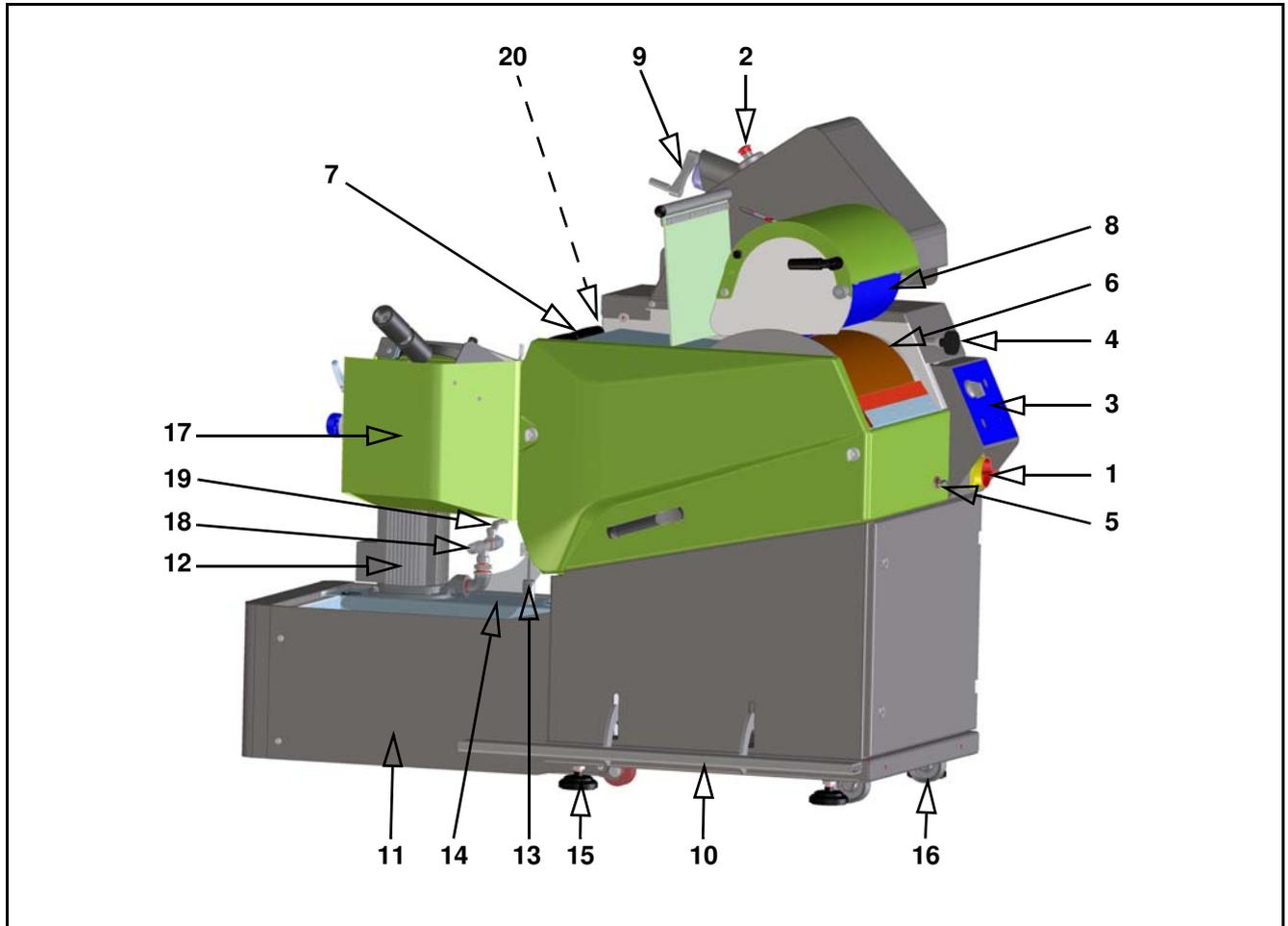
Type: Omega B - belt aggregate	
Permissible ambient temperature	+ 10 to 30°C (+50 to 86°F)
Humidity	5 - 80%
Noise emission belt aggregate averaged sound pressure level (Lp) at the workplace for an ordinary grinding process.	Lp 80 dB(A)
Noise emission by side edge grinding aggregate averaged sound pressure level (Lp) at the workplace for an ordinary grinding process.	Lp 74.2 dB(A)
The declared values can vary depending of the used equipment and the settings of the grinding parameters!	

We reserve the right to make technical modifications.

### 3.1 Machine dimensions



### 3.2 Machine overview



- |                                   |  |
|-----------------------------------|--|
| 1) Main switch                    | 11) Coolant tank                         |
| 2) Emergency stop button          | 12) Coolant pump                         |
| 3) Operating panel                | 13) Level display                        |
| 4) Height adjustment feed rollers | 14) Filter bag                           |
| 5) Coolant control                | 15) Adjustable feet                      |
| 6) Contact wheel                  | 16) Transport rollers                    |
| 7) Support roller                 | 17) SEG side edge aggregate (option)     |
| 8) Three-part feed roller         | 18) Cleaning hose coupling               |
| 9) Contact pressure adjustment    | 19) Central stopcock coolant             |
| 10) Feed lifting device           | 20) Compressed air connection (optional) |

## 4 Start-up

### 4.1 Transportation



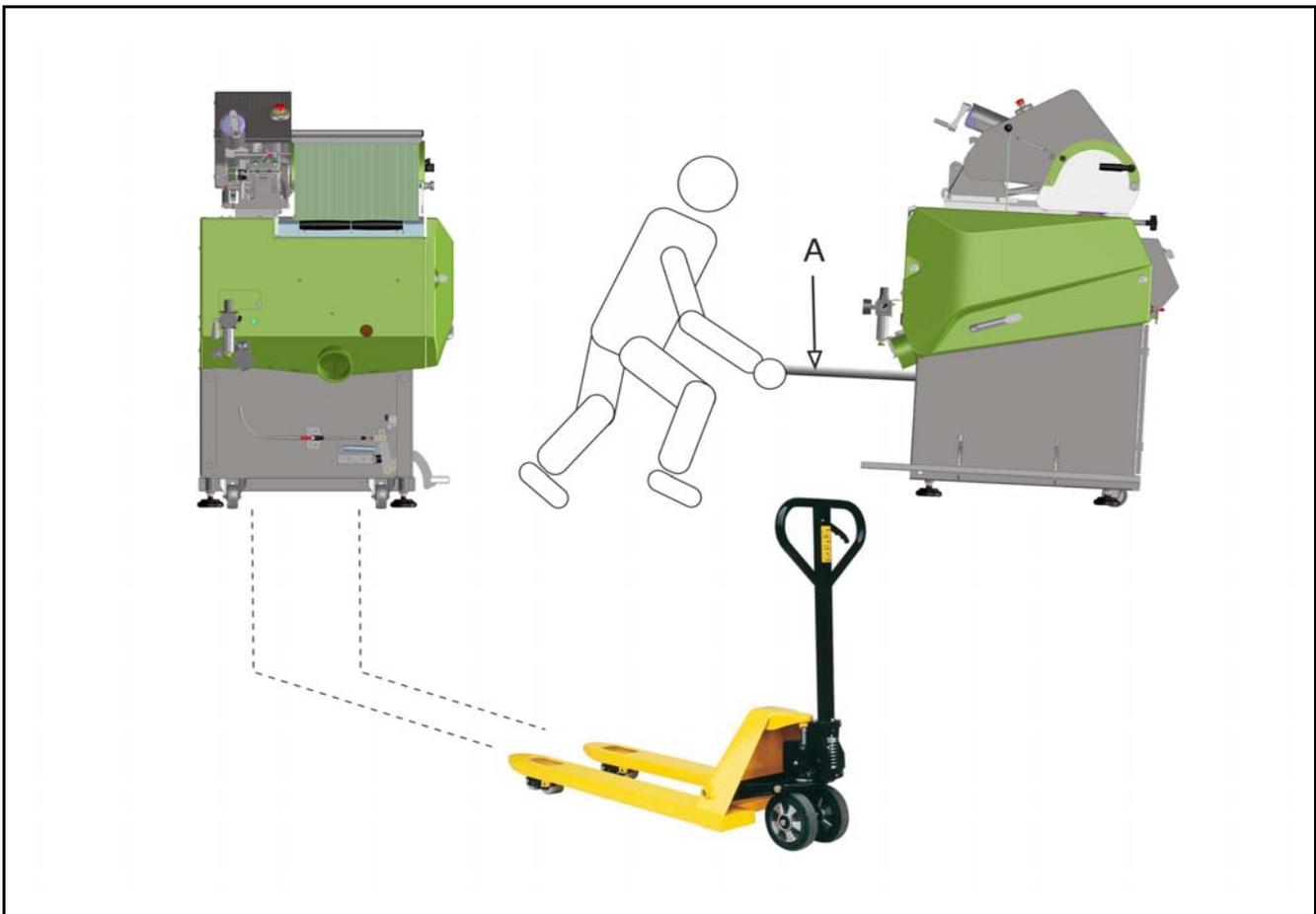
Pay attention to the notes regarding safety ([see chapt. 2.2.3 Transport safety information, page 7](#))!

- Disconnect all energies used (e.g. electrical connection, compressed air etc.) before transport.
- Maneuver by hand using suitable support rods [A].



**The support rods are only suitable for maneuvering the machine by hand. On no account for lifting the machine!**

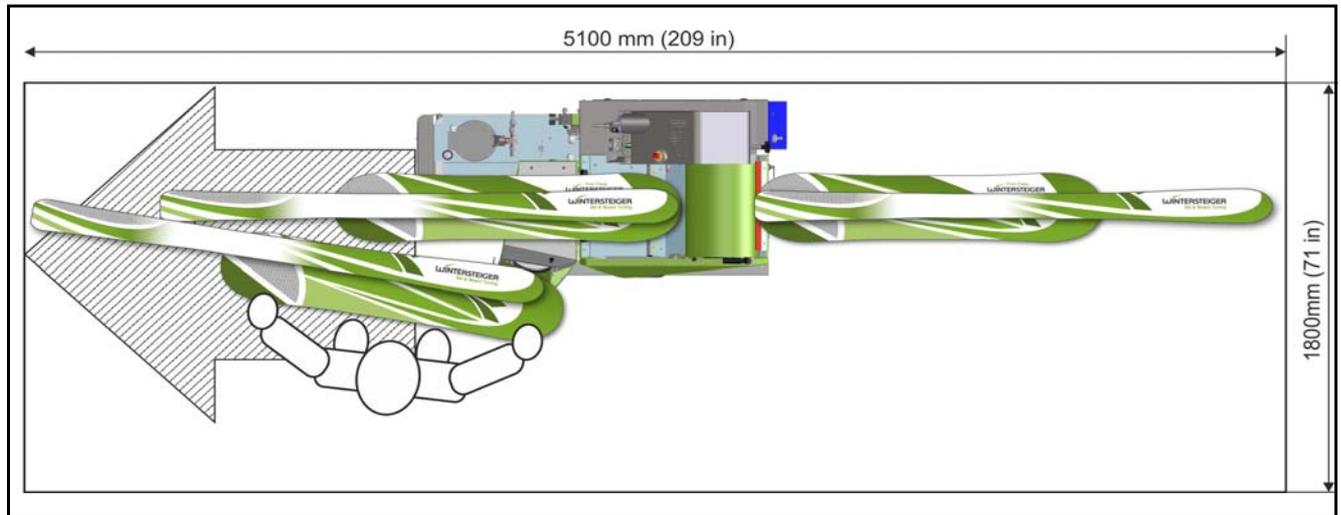
- Transportation of the machines using forklift, lifting gear etc., see following graphic.



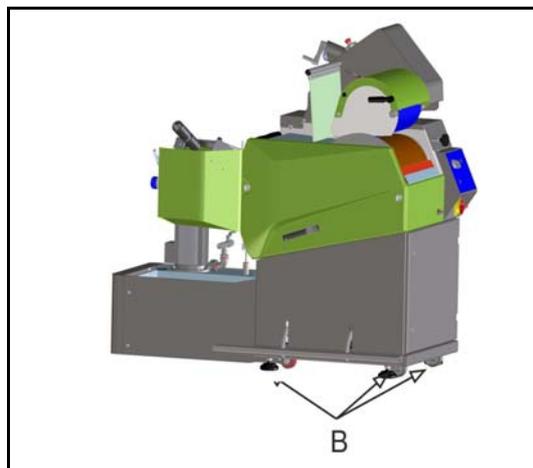
## 4.2 Installation

The machine must be installed by a WINTERSTEIGER engineer!

- Check the machine location for flatness and for adequate bearing capacity. When in doubt, perform a static analysis.
- Inspect the machine for transportation damage. Possible damage must be reported immediately to the manufacturer.
- The working area is in front of the machine.



The **RESTRICTED AREA** may not be entered during the grinding process because the ski could be ejected if the feed friction is not adequate.  
Mount a film wrapping, if possible!



- Level the machine horizontally and vertically using the adjustable feet [B] with a spirit level!
- Remove the transport retainers!

### 4.3 Connecting the electrical and pneumatic energy supply



If possible, the energy supply should be from above! This prevents potential tripping points over cables and lines!

- Installation only by a qualified electrician!
- Ensure that the supply voltage is correct. The machine voltage can be read from the rating plate.
- Check correct running direction by switching on the motor or pump for a short time. See arrow next to the contact wheel, feed arm or pump.



**Ensure that the supply voltage is correct.  
See the type label for the connected load.**

**A qualified electrician must be employed to connect the device to the mains supply!**

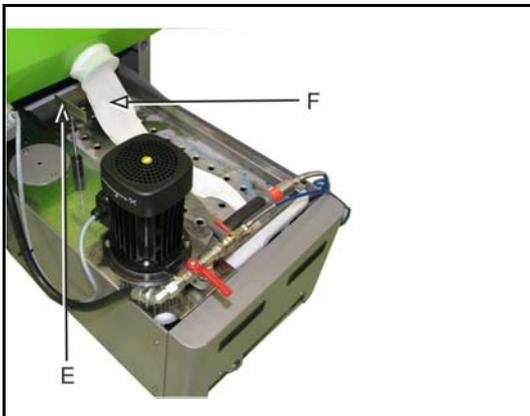
**As frequency converters are used together with power filters to control the speed, note that the use of residual current monitors is not recommended.**

**However, if for reasons of safety an earth fault circuit interrupter is stipulated as mandatory, only universal-current earth-leakage circuit breakers of type "B" (e.g.: ABB series F804, Doepke DFS 4B, or similar devices) with a rated residual current of 300 mA may be used.**

**Earth-leakage circuit breaker of type "B+" must not be used.**

**If a plug connection is impermissible in the supply line, the machine must be permanently connected.**

### 4.4 Filling the coolant tank



- A water connection nearby simplifies coolant replacement and replenishment.
- If coolant tank according to information on the emulsion tank to prevent corrosion.



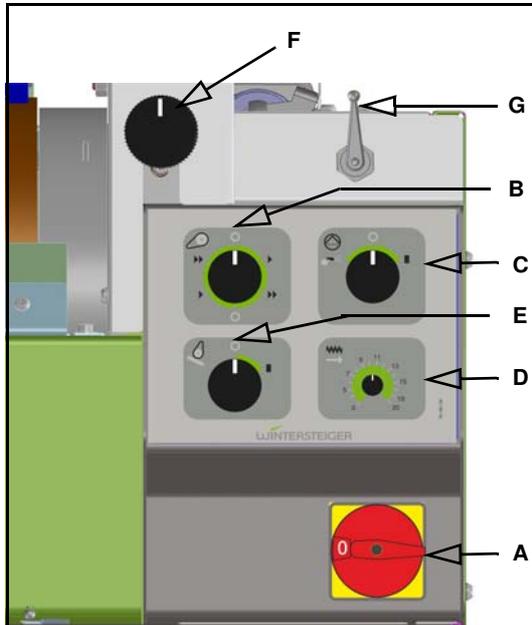
**Danger of corrosion!**

**Use only a water/emulsion mixture!**

**Under no circumstances may the machine be operated or cleaned with water only!**

- Please observe the coolant fill level according to the marker at the fill level indicator [E].
- To avoid loss of coolant, push the coolant tank fully into the machine!
- Fasten filter pad or filter bag [F] at the discharge port.

## 5 Description of controls



- A: Main switch**  
Switches the entire power supply of the machine on and off.
- B: Stepping switch grinding motor on / grinding motor + feed on**



**Speed may not be changed during the grinding operation!  
Startup is delayed when changing the speed.**

- Level  grinding motor off
- Level  grinding motor on - speed 1
- Level  grinding motor on - speed 2



**Only one grinding speed is available for the USA version!**

- C: Stepping switch coolant supply - cleaning hose:**

- Level  coolant supply belt - automatic
- Level  coolant and cleaning supply off
- Level  supply cleaning hose on

- D: Feed speed preselection:**

- Infinitely variable from 5 - 20 m/min

- E: Stepping switch SEG (option):**

- SEG on - off

- F: Height adjustment feed rollers:**

- Setting distance between feed roller and abrasive belt 2 to 4 mm.

- G: Coolant supply stopcock - abrasive belt:**

Control the coolant volume supply for the spraying nozzles of the abrasive belt using this lever.

- H: Coolant supply stopcock - side edges-abrasive belt:**

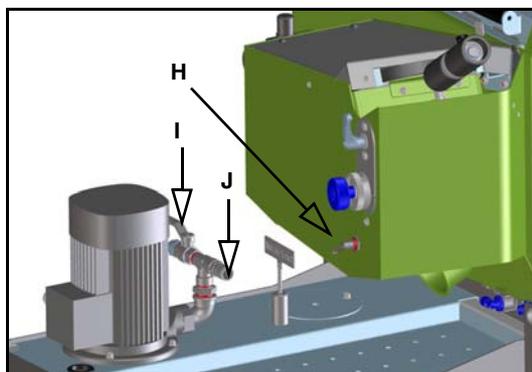
Control the coolant volume supply for the spraying nozzles of the side edges-abrasive belt using this lever.

- I: Central stopcock for cleaning or waxing belt:**

Lock the two stopcocks [G, H] using this lever.

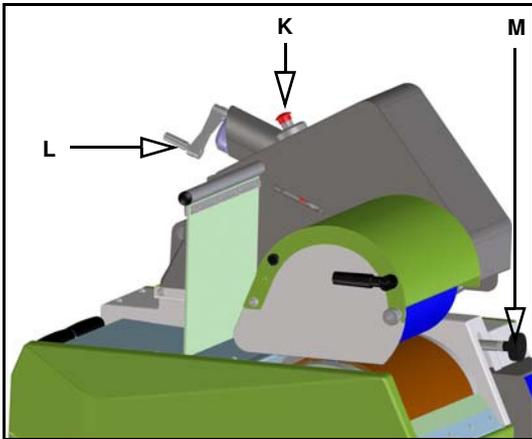
- J: Cleaning hose coupling:**

Close the central stopcock [I] during cleaning!



**Only the relevant stopcock should be opened to ensure a sufficient coolant supply for the aggregate used.**

## 5.1 Automatic feed (option)



The automatic feed ensures uniform transport of the ski or the snowboard.

### K: Emergency stop button

- Switches the machine off if a dangerous situation occurs.



**The button remains locked in the pressed position. Turning the button clockwise will unlock it again so that it returns to the original position. Switching on with the main switch [A] is then again possible.**

### L: Contact pressure

- Using the handwheel, the contact pressure can be adjusted infinitely variable from 140 - 450 N.

A contact pressure of 200 N is adequate for the new belts. The pressure can only be increased after longer usage.

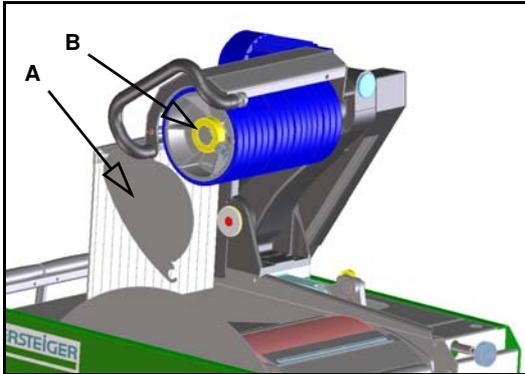
### Following basically applies for the contact pressure:

- Higher contact pressure - high material removal - tendency to hollow grind.
- Lower contact pressure - low material removal - clean, flat grind.
- In order to achieve uniform material removal, it is recommended not to grind the snowboard (ski) always in the same direction but to turn it around after every grinding process. The last 2-3 grinding sequences must always be in the direction of motion.

### M: Height adjustment of abrasive belt feed rollers

- Setting distance between feed roller and abrasive belt 2 to 4 mm.

### 5.1.1 Combination examples for three-part feed roller



**WARNING** Risk of injury!

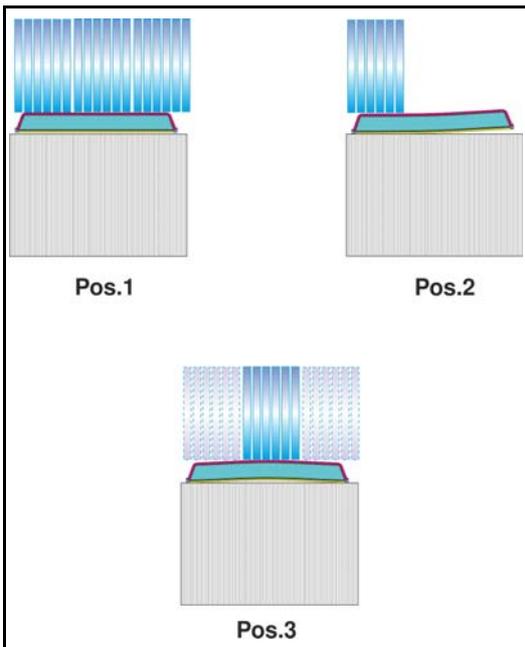
Before working on the machine, switch the machine off at the main switch and secure it against being switched on again!

- Swivel feed arm upwards.



A significant degree of force is necessary to fold the feed upwards. If the contact pressure is reduced, the necessary force application will also be less.

- Swivel feed roller guard [A] to the rear by loosening the knurled screw.
- Adjusting the locking bolts [B] at the feed rollers allows these to be removed or positioned.



The feed rollers are numbered. Always position the feed rollers in the same order!

#### Item 1

All three feed rollers can be used for flat snowboards.

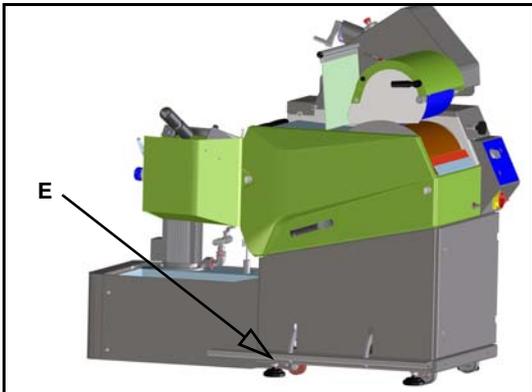
#### Item 2

Only one feed roller should be used for convex snowboards. The left and right side can be ground separately with two passes.

#### Item 3

All three feed rollers can be used for concave freestyle boards. Only one feed roller in the center should be used for concave race boards.

### 5.1.2 Feed lifting device



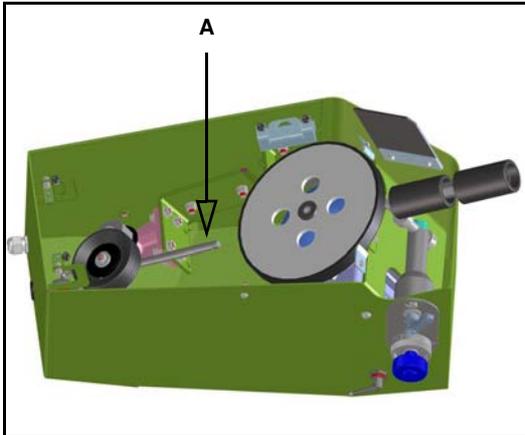
The feed roller is lifted via the foot pedal [E] and slowly lowered after inserting the ski tip.

If the feed arm is completely raised, the feed arm can be unlocked and lowered again by adjusting the locking bolt.

## 5.2 Side edge grinding aggregate SEG (optional)

Only abrasive belt with synthetic resin bonding may be used.

### 5.2.1 Abrasive belt change

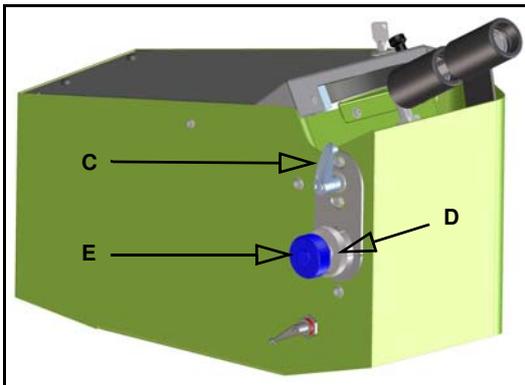


**CAUTION** Risk of injury!

**Before working on the machine, switch the machine off at the main switch and secure it against being switched on again!**

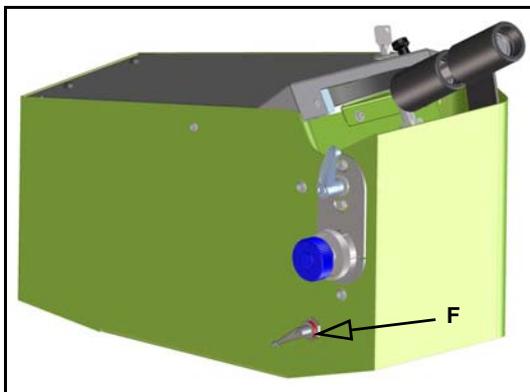
- Open cover and slide the old abrasive belt off.
- Press clamping lever [A] inwards and put new abrasive belt on.
- Belt tensioning and centering will be performed automatically.

### 5.2.2 Ski rest



- The ski rest can be height adjusted after releasing the locking lever [C].
- The grinding angle can be adjusted with the eccentric roller [D] from 0° to 4°.
- Secure the eccentric roller using the handwheel [E].

### 5.2.3 Spraying

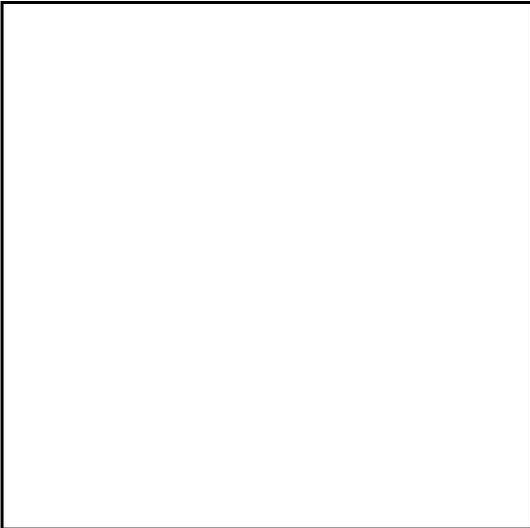


- The spraying intensity is adjusted using the ball valve [F].



**Abrasive belt cleaning and side edge cooling will be inadequate if the coolant supply is insufficient.**

## 6 Working with the machine



**Risk of injury!**

**Always wear gloves made from suitable material and protective goggles!**



**Pull the ski brakes up or use the dummy sole.  
Use the binding bridge when grinding with the feed.  
In case of snowboards, all loose parts e.g. leashes are to be removed before the grinding process.**

- Switch on the machine with the main switch.
- Open coolant supply for the abrasive belt.

### **Grinding with the feed**

- Select the grinding and feed speeds on the operator station.
- Actuate the foot pedal for the lifting device of the feed.
- Keep the ski (snowboard) with the tip at the front below the feed rollers then slowly lower the feed rollers using the foot pedal.



**Risk of injury!**

**During the entire grinding process, lead and hold the ski (snowboard) with the hands.**

**Pay attention to the collection location between the feed and the abrasive belt or between the abrasive belt and the abrasive belt cover!**

### **Grinding without feed**

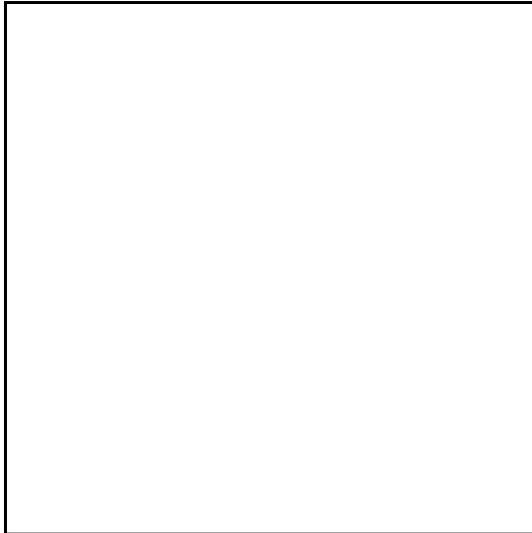
- Select the grinding speed on the operator station.
- Lead the ski (snowboard) over the belt with the tip in the front in the throughput direction with slight, uniform contact pressure.



**Risk of injury!**

**During the entire grinding process, lead and hold the ski (snowboard) with the hands.**

## 6.1 Cold waxing and deburring



Belt replacement is necessary for the cold waxing and deburring process.

- Replace the abrasive belt with a cold waxing/deburring belt ([see chapt. 8.3.1 Fitting an abrasive belt, page 29](#)).



**WARNING** Risk of injury!

**Always wear gloves made from suitable material and protective goggles!**



**Pull the ski brakes up or use the dummy sole. Use the binding bridge when grinding with the feed. In case of snowboards, remove all loose parts e.g. leashes before the grinding process.**

- Switch off the coolant pump.



**The cold waxing belt is to be operated without the coolant supply!**

- Switch on the machine with the main switch.
- Select grinding speed "level 1" and low feed speed on the operator station.
- Apply rod wax uniformly on the cold waxing belt.

### Cold waxing with the feed

- Reduce contact pressure of the feed rollers.
- Actuate the foot pedal for the lifting device of the feed.
- Keep the ski (snowboard) with the tip at the front below the feed rollers then slowly lower the feed rollers using the foot pedal.



**WARNING** Risk of injury!

**Lead and hold the ski with the hands during the entire grinding process.**

**Pay attention to the collection location between the feed and the waxing belt or between the waxing belt and the abrasive belt cover!**

### Cold waxing without feed

- Lead the ski (snowboard) over the belt with the tip in the front in the throughput direction with slight, uniform contact pressure.

The base is thus waxed and the steel edges deburred and the side edges preserved.

# 7 Troubleshooting



**Risk of injury!**

**Before working on the machine, switch the machine off at the main switch and secure it against being switched on again! The machine may be operated only with completely attached guards and covers.**

**Work on the machine's electrical system may only be carried out by a qualified electrician in line with accepted practices!**

Error, issue	Cause	Elimination
<b>Belt grinding quality not okay</b>		
Speed reduction or rough, fiber-like structure	Abrasive belt not broken Contact pressure too high	Break abrasive belt with belt dressing stone Set contact pressure lower
Base is fiber-like	Abrasive belt insufficiently broken	Break abrasive belt with belt dressing stone
	Insufficient coolant supply	Open coolant supply ball valve, check coolant level in tank, check lines and nozzles, if necessary clean
	Coolant very dirty	Clean coolant tank Replace coolant
Base is gray	Deburring and cold waxing belt new or insufficiently waxed	Wax deburring and cold waxing belt, first process some old boards in the case of a new belt
Structure in the edge	Abrasive belt not broken Too much contact pressure	Break abrasive belt with belt dressing stone Set contact pressure lower
Edge insufficiently deburred	Deburring belt used up Contact pressure too low Too much wax on the waxing belt	Press on the belt gently with wire brush and remove surplus wax
Edge rusting	Mixing ratio water/emulsion incorrect	Add emulsion
	Old, contaminated coolant	Replace coolant
Spraying not functioning	Pump is not connected Nozzles are blocked Not enough water in tank Pump is blocked	Connect pump Clean nozzles with compressed air Replenish water Disassemble pump, clean and assemble in the order of disassembly
<b>Electrical system</b>		
Machine fails to start		Check the fuses and fault-current circuit breakers at the mains fuse box Check the power cable

Error, issue	Cause	Elimination
Machine fails to start (humming noise)		Fuse failed in supply line Wire in supply line interrupted Switch defective
Machine switches off during operation, can no longer be started.	The main switch switches off upon power failure.	Switch on the main switch
Aggregate failure (belt motor, feed, plunger pump)	Motor protection has triggered	Switch off main switch Pull out power plug Switch on corresponding motor protection switch

## 8 Maintenance



Before carrying out maintenance, setting, repair or cleaning work, ensure that the machine is switched off and disconnected from the mains supply. When carrying out work in an area which is not in close vicinity to the controls, we recommend that the main switch is locked.

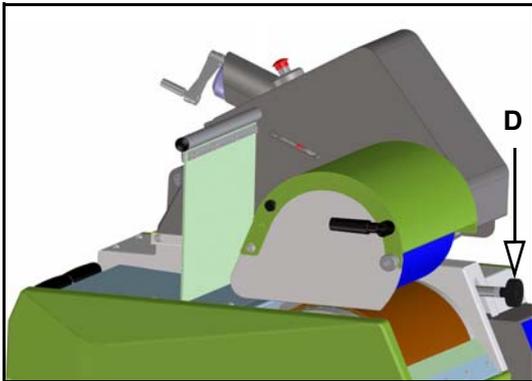
### 8.1 Safety components replacement

Since the installed main switch is a safety component and the calculated service life of the main switch is 17 years, this is to be replaced after 17 years!



### 8.2 Feed maintenance

#### 8.2.1 Feed roller face grinding



The rubber-coated feed rollers must be face ground again in case of significant wear, in order to achieve an optimum adhesion on the ski and snowboard.



**Wear protective goggles!**

- Close cooling water supply.
- Lower the feed roller onto the abrasive belt using the handwheel [D]. Grind in rubber until the wheel is level again.
- Use handwheel to lift feed roller again. Distance between the feed roller and abrasive belt should always be between 2 and 4 mm.



**Regularly advance the adjustable spacer plate to the feed rollers!**

## 8.3 Servicing belt aggregate

### 8.3.1 Fitting an abrasive belt



WINTERSTEIGER abrasive belts are available with a granulation of 80, 100 or 120. New abrasive belts must be softened with a belt dressing stone before commissioning ([see chapt. 8.3.3 Breaking the abrasive belt, page 30](#)).



Before working on the machine, switch the machine off at the main switch and secure it against being switched on again!

- Remove guard [A] and relax the belt with the lever [B].
- Push abrasive belt flush over the contact wheel and idler wheel.

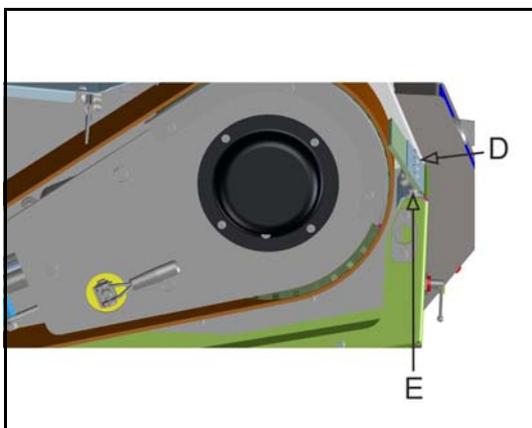
**i** **Observe rotational direction!**  
 Direction arrows are provided on the inside of the abrasive belt, these indicating the rotational direction!  
 Inspect surface of contact wheel [B] for dirt. Be sure to remove dirt accumulation, as this adversely affects the grinding pattern.

- Tension the new belt and attach the side guard.

**i** **A grinding force of 200 N is adequate for new belts. The pressure can only be increased after longer usage. The abrasive belt must be relaxed if the machine remains out of operation for several days.**

If using Scotch belts, the distance from the feed rollers to the Scotch belt must be set.

### 8.3.2 Setting the spray flap



To prevent water mist, the spray flap [D] must be set as closely to the abrasive belt as possible.

- Loosen screw [E] and set spray flap [D] with 1 - 2 mm distance to the abrasive belt.
- Tighten screw [E].

### 8.3.3 Breaking the abrasive belt



To optimally use a new abrasive belt, it must be softened (broken) prior to use to prevent damage of the ski base.

**WARNING** Risk of injury!

**Always wear gloves made from suitable material and protective goggles!**

- Switch on machine.
- Pull belt dressing stone across the operating abrasive belt, exerting gentle pressure.

# 9 Maintenance

## 9.1 General

Check all screws and adjusting screws regularly to ensure that they are tight.  
Test the emergency stop button on the feed regularly for proper functioning.



**Risk of injury!**

**Before carrying out maintenance, setting, repair or cleaning work, ensure that the machine is switched off and disconnected from the mains supply. When carrying out work in an area which is not in close vicinity to the controls, we recommend that the main switch is locked.**

## 9.2 General information for the correct handling of solid cooling lubricants

The solid cooling lubricants contain a high number of different chemicals so that they can fulfil their tasks (cooling, lubrication, removal of chippings, corrosion prevention). This makes the maintenance and care of the solid cooling lubricants very important.

### Organizational measures



**Please take special care of the cleanliness of the solid cooling lubricant emulsion to prevent the development of nitrosamines and microbial growth!**

### Among others, please adhere to the following measures:

- Prevent the presence of organic and anorganic food, cigarette butts, corrosion protection materials, etc.
- Avoid the invasion of foreign oils into the solid cooling lubricant systems.
- Avoid the intrusion of impurities and contaminants, which contain secondary amines or which release those in significant quantities (above 0.2% in solid cooling lubricant concentrate). This includes detergents, certain corrosion protection materials, system cleaners.
- The following analyses and measurements must be performed. The TRGS 611 is the legal basis for the listed limit values in Austria and Germany. The limit values in other countries must be applied in accordance with the local laws.

Tests	Measurement frequencies	Limit value
KSS concentration	weekly	according to manufacturer's information
Nitrate content of the preparation water	from time to time	max. 50 mg/l
pH value	weekly	8,5 - 9,0
Nitrite	weekly	max. 20 mg/l
Microbial count (recommended)	monthly	10 <sup>6</sup> germs
Total hardness	as required	app. 16°d

As part of the FLUIDMANAGEMENT, WINTERSTEIGER offers an analysis case for monitoring and measuring solid cooling lubricants as well as the documentation of the measurement results. This allows you to immediately implement counteractive measures if the limit values are exceeded and you can extend the frequencies for the coolant change significantly beyond the 4 weeks. In addition, the WINTERSTEIGER-Fluidmanagement includes accessories (high performance lubrication spray, system cleaner, machine foam cleaner, preservatives, skin protection sets), which are adapted to the emulsion and therefore largely prevent the introduction of contaminants.

Immediately implement counteractive measures or change the grinding coolant if the limit values are exceeded. **The emulsion must be changed after app. 1,000 pairs of skis or after 4 weeks at the latest if WINTERSTEIGER-Fluidmanagement is not used.** Drain the coolant system and clean it with a system cleaner after the end of the season and during longer standstills of the machine.

### Safety measures

Appropriate protective clothing (e.g. protective gloves, protective goggles, fluid repellent protective clothing) should be used because the solid cooling lubricants have, among others, a skin irritation effect. A preventive skin protection (barrier cream) should be used if skin contact cannot be avoided. Avoid eye contact with cooling lubricants!

### Disposal

Do not drain into the sewage water system! Adequate disposal is required in accordance with the manufacturer's safety data sheet information and with the local laws.

## 9.3 Base machine - coolant tank maintenance

Item No.	Maintenance work	Daily	Weekly	Monthly	Annually	Notes
<b>Cleaning</b>						
1) <sup>1</sup>	Complete machine	x				Danger of corrosion: Do not use tap water without emulsion to clean the machine - always use the cleaning hose for cleaning
2)	Operating panel	x				With a moist cloth when the machine is switched off or as required - do not use cleaning agents
3)	Support rollers and centering rollers (optional)		x			
<b>Cooling system</b>						
4)	Check fill level	x				If required, more frequently
5)	Filter pad or filter bag	x				Check daily, if necessary empty and clean
6)	Clean the bar magnet (optional)		x			Remove the bar magnet from the coolant tank and clean using a cloth (more frequently if required)
7)	Clean filter cartridge (optional)		x			<a href="#">see chapt. 9.3.1 Clean filter cartridge, page 33</a>

Item No.	Maintenance work	Daily	Weekly	Monthly	Annually	Notes
8)	Coolant change			x		<a href="#">see chapt. 9.2 General information for the correct handling of solid cooling lubricants, page 31</a> ATTENTION: Dispose of emulsion according to national regulations. Do not release into sewage system or water bodies.
<b>Lubrication - Caution: Clean the greasing nipple before greasing!</b>						
9)	Oil moving parts		x			High-performance lubrication spray 55-645-350
10)	Lubricate feed guide (only in case of machine type Omega SBI!)			x		1 grease gun shot
<b>Testing</b>						
11)	Check compressor container and maintenance unit for condensate and drain if necessary (optional pneumatic grinding force)		x			<a href="#">see chapt. 9.3.2 Emptying the water separator (optional pneumatic grinding force), page 34</a>

1 **Danger of corrosion:** Do not use tap water to clean the machine! For cleaning, always use the cleaning hose and the coolant! Cleaning of the machine with a high pressure cleaner is not permitted! No liability or warranty will be assumed for consequential damage if you fail to observe this.

### 9.3.1 Clean filter cartridge



A fine filter can optionally be fitted in order to attain an optimum cleaning of the cooling lubricant.

If the pressure difference is greater than 1 bar between the plunger pump pressure gauge [A] and fine filter pressure gauge [B] during operation, the filter cartridge must be cleaned.

- Switch off the machine at the main switch.
- Unscrew filter housing and clean filter cartridge with clear water.

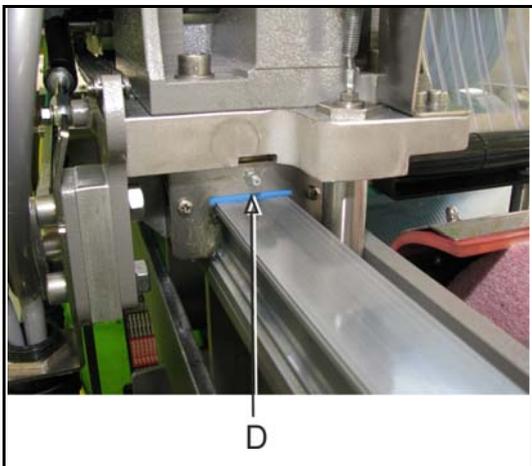
### 9.3.2 Emptying the water separator (optional pneumatic grinding force)



Check the water separator for condensate once a week.

- Turn the knurled nut [C] to drain condensate.

### 9.3.3 Lubricating the feed guide



**i** Only concerns machine type Omega SBI!

- Move feed as far as the limit stop on the grinding stone side.
- Clean lubricating nipple [D] and lubricate with a grease gun shot.

## 9.4 Maintenance: Belt aggregate

### 9.4.1 Maintenance schedule

Item No.	Maintenance work	Daily	Weekly	Monthly	Annually	Notes
<b>Cleaning</b>						
1) <sup>1</sup>	Complete belt aggregate	x				Danger of corrosion: Do not use tap water without emulsion to clean the machine - always use the cleaning hose for cleaning
2)	Contact wheel		x			Remove belt beforehand
<b>Lubrication - Caution: Clean the greasing nipple before greasing!</b>						
3)	Oil moving parts		x			High-performance lubrication spray 55-645-350
4)	Lubricate flange bearing belt aggregate (front)			x	x	1 grease gun shot After the end of the season also one grease gun shot, Afterwards, run the machine one more time with closed central stopcocks ( <a href="#">see chapt. 9.4.2 Cleaning the belt aggregate, page 35</a> ).
<b>Testing</b>						
5)	Check drive belt tension			x		You should be able to force through the drive belt approx. 10 mm by applying a force of approx. 2.5 kg ( <a href="#">see chapt. 9.4.4 Check drive belt tension, page 36</a> ).

<sup>1</sup> **Danger of corrosion:** Do not use tap water to clean the machine! For cleaning, always use the cleaning hose and the coolant! Cleaning of the machine with a high pressure cleaner is not permitted! No liability or warranty will be assumed for consequential damage if you fail to observe this.

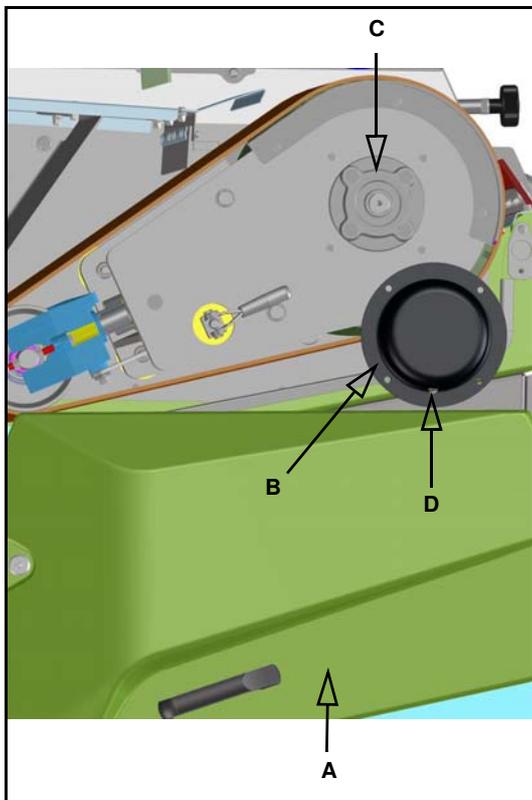
### 9.4.2 Cleaning the belt aggregate



**Risk of injury!**

**Before cleaning, switch the machine off at the main switch and secure it against being switched on again! Always wear gloves made from suitable material! Remove the abrasive belt before cleaning the belt aggregate! This increases accessibility.**

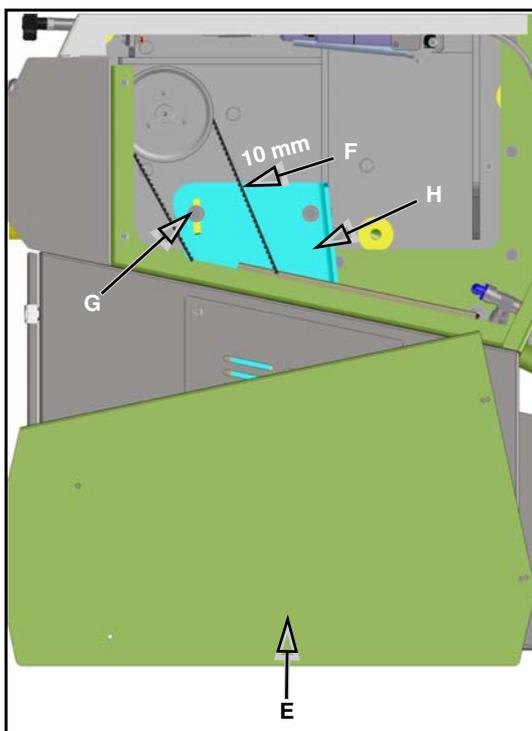
### 9.4.3 Lubricating the flange bearing



- Remove guard [A].
- Remove bearing cover [B].
- Clean lubrication nipple and lubricate flange bearing [C] with a grease gun.
- Mount bearing cover [B].  
When mounting the bearing cover [B], make sure that the hole [D] for the water drain is in the lower position.
- Fit guard [A].

**i** Afterwards, run the machine one more time with closed central stopcocks.

### 9.4.4 Check drive belt tension



- Remove guard [E].
- You should be able to force through the drive belt [F] approx. 10 mm by applying a force of approx. 2.5 kg .

#### Tensioning the drive belts

- Loosen screws [G].
- Turn motor bracket [H] until the required tension is present.
- Tighten screws [G].
- Fit guard [E].

## 10 Shut-down and disposal



**Risk of injury!**

**Disconnect the machine from the mains supply or any external drive prior to shutting down and dismantling. Use only suitable tools for dismantling.**



**When shutting down the machine dismantle and dispose of all machine parts properly. Clean all oily and greasy components prior to disposal.**

**Oil and grease should never be allowed to pollute the environment.**

**Ensure that all disposal regulations specific to your country are adhered to!**

- Dismantle the machine properly into its individual components.
- Clean oily and greasy components.
- Dispose of components by material group (steel, plastic, electrical and electronic components, etc.).
- Dispose of oil and grease in an environmentally friendly manner.



**CE Konformitätserklärung  
Declaration of Conformity  
Certificat de conformité  
Declaración de conformidad  
Dichiarazione di conformità**



Hiermit erklären wir, dass das Produkt  
We hereby declare that this product  
Par la présente nous certifions que le dit produit  
Por la presente declaramos que el producto  
Con la presente dichiariamo che il prodotto

**Omega B, Omega S, Omega SBI**

**No.:**

**Ski- und Snowboardscheifmaschine**

**Ski and snowboard grinding machine**

folgender(-en) einschlägigen Bestimmung(en) entspricht:  
conforms to the following regulations:  
correspond à la (aux) spécification(s) suivante(s):  
corresponde a la(s) siguiente(s) directiva(s) competente(s):  
è conforme alla(e) seguente(i) disposizione(i):

**EG-Maschinenrichtlinie 2006/42/EG**

**EG-EMV-Richtlinie 2004/108/EG**

**EG-Niederspannungsrichtlinie 2006/95/EG**

Dokumentations-Bevollmächtigte:

Person authorised to compile the technical file:

Personne autorisée à constituer le dossier technique:

Persona facultada para elaborar el expediente técnico:

Persona autorizzata a costituire il fascicolo tecnico:

Marek-Pollhammer Maria

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Ried /I.,am 17.12.2013

  
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Vorsitzender des Vorstandes

  
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Vorstand