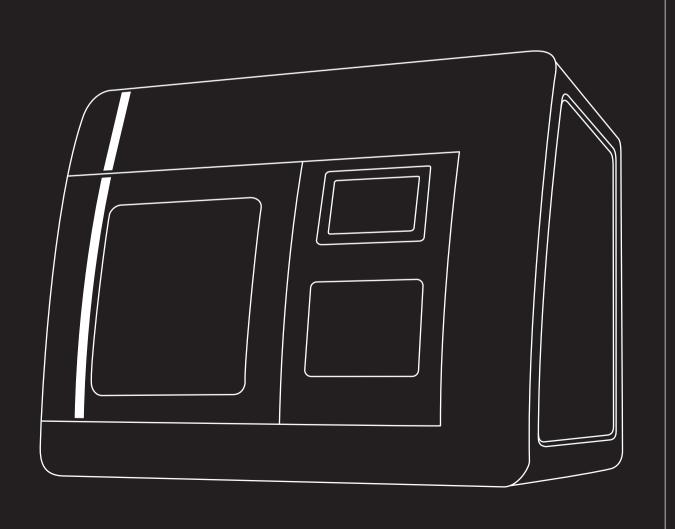
# **≈cera**mill® matik **≈cera**mill® cleanstream

**EN** Maintenance instructions





5 Maintenance Confirmations ...... 21

5.1 Maintenance confirmations by

5.2 Maintenance confirmations by

5.3 Maintenance confirmations by

#### - Translation of the original maintenance instructions -

Dear Amann Girrbach customers,	Customer Data	Machine Data	Table of Contents
We are pleased that you have chosen an Amann Girrbach machine and congratulate	First name/Company	Model/Type	1 Explanation of Symbols 4
you on your choice. Amann Girrbach machines			2 General Maintenance and Cleaning
and equipment stand out through highest	Surname/Company	Serial number	Instructions4
quality, reliability and innovation; the basis for long life and perfect operation.			3 General Maintenance and Service Plan for Ceramill Matik 5
In order to maintain the reliability, accuracy and service life of your machine, regular care	Address	Date of installation	4 Maintenance Work
and professional maintenance are particularly important in addition to correct use. Please			4.1 Cleaning the milling chamber 6 4.2 Cleaning and lubricating the collet
refer to the operating and maintenance	Postcode and city		4.3 Checking the coolant/
instructions in this maintenance booklet and on our YouTube channel:			4.4 Changing coolant/ lubricant (C/L) 12
https://www.youtube.com/user/AmannGirrbachHQ	Country		4.5 Changing the Airstream filter bag
			4.6 Changing the filter fleece17
We wish you much joy with your Amann Girr-	<del></del>	<del></del>	4.7 Changing the filter cartridge 19

bach machine.

Your Amann Girrbach team



### 1 Explanation of Symbols

#### **Warning indications**

Warning indications in the text are marked with a colour-backed triangle and boxed.

In case of hazards through electricity, the exclamation mark in the warning triangle is substituted by a lightning bolt.

Signal words at the beginning of a warning indication specify the type and severity of the consequences, if the measures to avert the hazard are not adhered to.

- \_ NOTE means that property damage can occur.
- **\_ CAUTION** means that light to fairly serious personal injury can occur.
- \_ WARNING means that serious personal injury can occur.
- \_ DANGER means that serious personal injury can occur.

#### Important information

Important information that do not lead to hazards for humans or property damage are marked with the icon aside and are also boxed.

#### Other symbols in the Manual

Symbol	Meaning
<b>&gt;</b>	Item of an operation description
_	Item of a list
•	Subitem of an operation descrip-
	tion or a list
[3]	Numbers in square brackets refer
	to position numbers in graphics/
	figures

# 2 General Maintenance and Cleaning Instructions

When installing, starting-up and operating the machine, always observe the following safety instructions:

# <u>/i\</u>

#### **CAUTION:**

A defective machine can lead to malfunctions! On detection of damage or a functional defect of the machine:

- ▶ Label the machine as defective.
- ▶ Prevent further operation until the machine has been repaired.



#### NOTE:

Possible damage to the glass window! Zirconia dust is abrasive and can cause scratches in glass.

Clean the window in the door carefully, using only a soft cloth; do not scrub or scour.



#### NOTE:

Possible damage to the milling chamber! Cleaning agents can aggressive to the inner walls of the milling chamber.

- ▶ Clean the milling chamber with water only.
- ▶ Do not use cleaning agents.



#### NOTE:

Possible machine damage through dried-in coolant/lubricant and bound in milling dust. After wet processing:

➤ Clean and dry the milling chamber prior to downtimes lasting several hours.



#### NOTE:

Possible machine damage due to unsuitable cleaning agents!

- Clean the milling chamber and material store only with the specified cleaning aids (brush, cleaning cloth).
- ▶ Do not use sponges, brushes etc.
- ▶ Do not use compressed air, ultrasonic or a steam jet for the cleaning!



#### NOTE:

Insufficient milling results!

▶ Keep the zero-point clamping system clean at all times.



#### NOTE:

The machine may only be serviced by trained specialised personnel.

# 3 General Maintenance and Service Plan for Ceramill Matik

Maintenance Work	Maint	enance through the Cu	Maintenance through Technician		
	Daily	Weekly	As required	Every 1500 operating hours	
Cleaning the milling chamber	Х				
Cleaning and lubricating the collet		Х			
Checking the coolant/lubricant		Х			
Changing the coolant/lubricant			Х		
Changing the Airstream filter bag		X <sup>1)</sup>			
Checking the filter fleece	Х				
Changing the filter fleece		Х			
Checking the filter cartridge	Х				
Changing the filter cartridge		X <sup>2)</sup>			
Replacing coolant/lubricant hoses				Х	
Replacing and lubricating the collet				Х	
Replacing the bellow set				Х	
Cleaning the controller filter				Х	
Checking the proper function of various components; checking the				Х	
system for leaks					

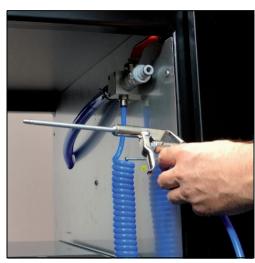
<sup>1)</sup> If the chamber pollution level is high, change the Airstream filter bag earlier than recommended.

<sup>2)</sup> If the water pollution is high, change the filter cartridge earlier than recommended.

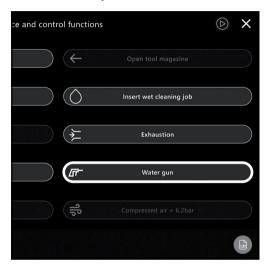
### 4 Maintenance Work

# 4.1 Cleaning the milling chamber

1. Take water gun out of base cabinet.



- 2. Select service menu.
- 3. Press "Water gun" and hold for 3 seconds.



4. Clean interior with water gun.



- 5. Take up accessory as required.
  This ensures that the collet cannot become contaminated when cleaning with the brush.
  - **Caution!** Possible danger of injury from the accessory!
- 6. Clean spindle nozzle with brush.



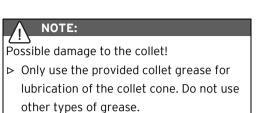
7. Clean interior again with water gun.

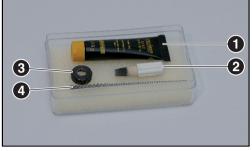


8. Dry the milling chamber and the inside of the door with a dry cloth.



# 4.2 Cleaning and lubricating the collet





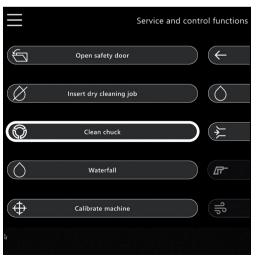
- 1 Collet grease
- 2 Felt cone
- **3** Spindle wrench
- 4 Collet brush



**5** Torque wrench

- 1. Select service menu.
- 2. Select "Clean chuck".

  The tool is placed down.



3. Apply torque wrench [5].



4. Loosen collet.



5. Unscrew spindle wrench.



6. Clean collet with felt cone [2].



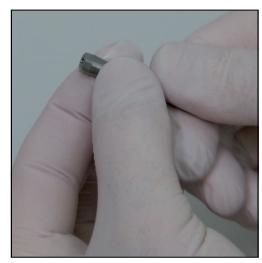
7. Clean collet cone with collet brush [4] from both sides.



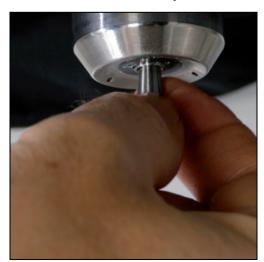
8. Remove a small quantity of collet grease [1].



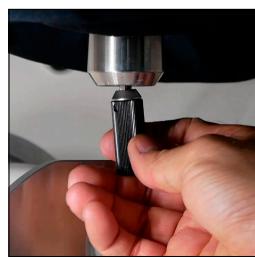
9. Apply collet grease extensively onto collet cone.



10.Re-insert collet and hand-tighten.



11. Apply torque wrench [5].



12. Tighten collet until torque wrench "clicks".



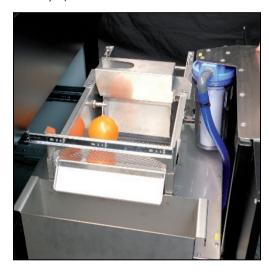
### 4.3 Checking the coolant/lubricant (C/L)



# NOTE:

Health hazards are possible through improper handling of C/L!

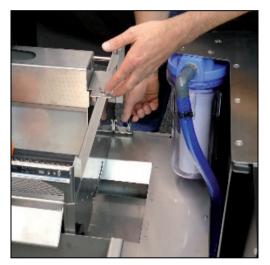
- ▶ Use only C/L recommended by the manufacturer!
- ▷ Observe the safety instructions and handling regulations for C/L!
- ▷ Dispose of coolant/lubricant according to local regulations.
- 1. Fully open Cleanstream drawer.



2. Pull up both knobs on the right and left side of the filter-strap drawer and turn them by  $90^{\circ}$ .



3. Slide filter-strap drawer to the rear.



4. Remove tank cover.



- 5. Remove refractometer and pipette from the drawer.
- 6. Suck up a few drops of coolant/lubricant with the pipette.



7. Apply coolant/lubricant from the pipette onto the measuring surface of the refractometer.



8. Close the lid of the refractometer.

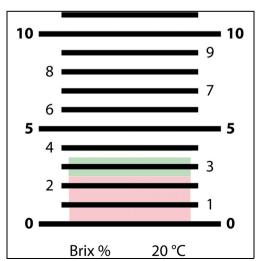
The measuring surface must be completely wetted with liquid.



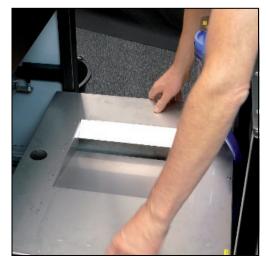
Hold the refractometer against a light source and look through the ocular (eyepiece).



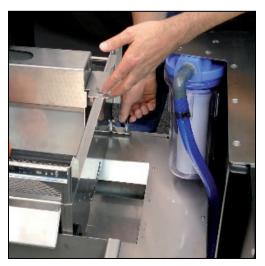
10.If the value is less than 2.5 % Brix: Reestablish coolant ratio or exchange coolant/lubricant (see Section 4.4).



11. Re-insert tank cover.



12. Pull filter-strap drawer to the front.



13. Turn both knobs on the right and left side of the filter-strap drawer by 90°. The knob must engage in the notch.



14.If required, move the filter-strap drawer until screws on both sides are engaged in the slotted hole.



15. Close the Cleanstream drawer.

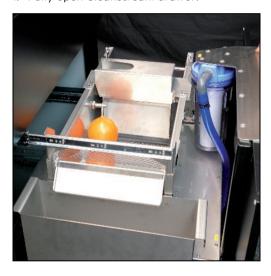


# 4.4 Changing coolant/lubricant (C/L)



Health hazards are possible through improper handling of C/L!

- ▶ Use only C/L recommended by the manufacturer!
- ▶ Observe the safety instructions and handling regulations for C/L!
- ▶ Dispose of coolant/lubricant according to local regulations.
- 1. Fully open Cleanstream drawer.



2. Pull up both knobs on the right and left side of the filter-strap drawer and turn them by  $90^{\circ}$ .



3. Slide filter-strap drawer to the rear.



4. Remove tank cover.



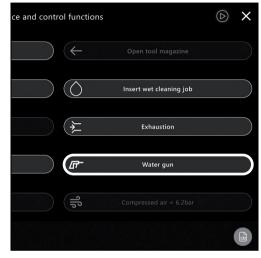
5. Connect wastewater hose.



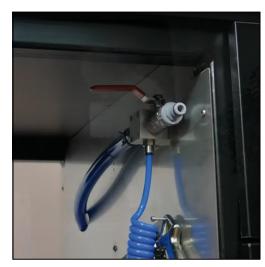
6. Open wastewater valve.



- 7. Select service menu.
- 8. Press "Water gun" and hold for 3 seconds. The tank drains.



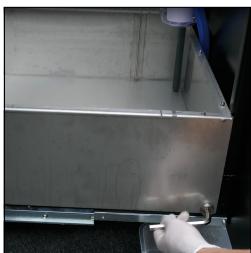
- 9. Once the drain has ran dry: Deselect "Water gun" on display.
- 10. Shut wastewater valve and remove wastewater hose.



11. Place suitable collection container under tank drain plug.



12. Take 10-mm Allen key from out of drawer.13. Unscrew tank drain plug with Allen key.



- 14. Guide remaining liquid toward outlet opening and allow to drain.
- 15. Clean empty tank with cloth.



16. Fill tank with fresh water.



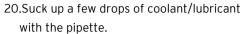
17. Fill tank completely until filler valve/float floats.



18. Add approx. 2.5 liters of coolant and mix well.



the drawer.



19. Remove refractometer and pipette from



21. Apply coolant/lubricant from the pipette onto the measuring surface of the refractometer.



22.Close the lid of the refractometer.

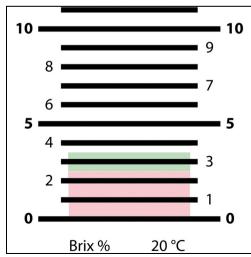
The measuring surface must be completely wetted with liquid.



23.Hold the refractometer against a light source and look through the ocular (eyepiece).

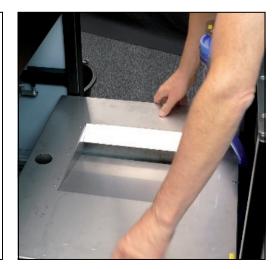


The value read must be between 2.5 and 3.5 % Brix.



24.Refill coolant or water, as required (steps 12 to 16).

25.Re-insert tank cover.

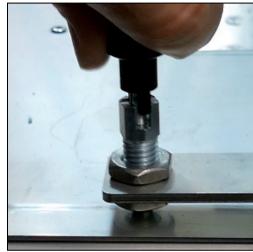


26.Pull filter-strap drawer to the front.



27.Turn both knobs on the right and left side of the filter-strap drawer by 90°.

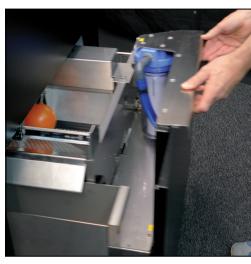
The knob must engage in the notch.



28.If required, move the filter-strap drawer until screws on both sides are engaged in the slotted hole.



29.Close the Cleanstream drawer.



# 4.5 Changing the Airstream filter bag

- 1. Disconnect Airstream from power.
- 2. Disconnect hose and remove Airstream unit from base cabinet.



3. Unscrew wing bolts on side of Airstream unit.



4. Remove side cover.



5. Pull filter bag from hose socket.



 ${\it 6. Close off old filter bag with adhesive tape.}\\$ 



- 7. Replace HEPA filter as required (see Airstream operating manual).
- 8. Slide new filter bag onto hose socket.



9. Insert/work new filter bag into provided space.



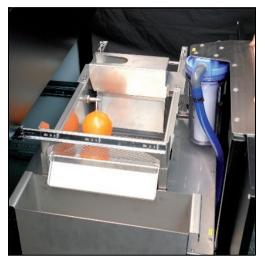
- 10.Re-insert side cover and lock it with wing bolts.
- 11. Connect hose with Airstream unit and reinsert Airstream unit back into base cabinet.





#### 4.6 Changing the filter fleece

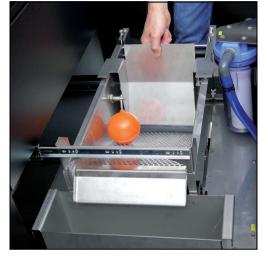
1. Fully open Cleanstream drawer.

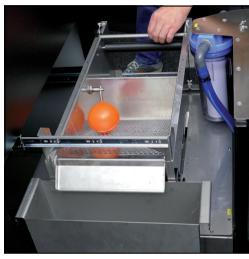


2. Remove upper cover.



3. Unscrew wing bolts and remove side cover. 4. Fold bracket up and remove roll.





5. Mount new roll of fleece.



6. Take out waste container.

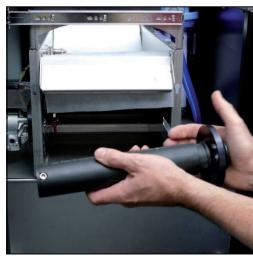




8. Fold flap up and guide fleece through.



- 9. Clamp roll with adhesive tape:
  - Remove holder
  - Mount the roll until click is heard.



10.Insert roll with adhesive tape:

11. Pull fleece downward.



12. Remove the adhesive-tape covering from the roll.

13. Press fleece against adhesive tape.



14. Adapt the fleece to the interior contour.



15. Re-insert side cover.



16.Re-insert upper cover. The rubber lip must seal.



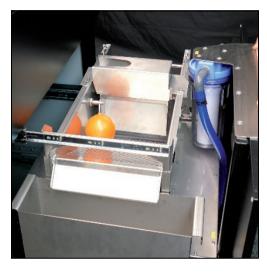
17. Hand-tighten the wing bolts.

18. Re-insert waste container and shut Cleanstream drawer.



# 4.7 Changing the filter cartridge

1. Fully open Cleanstream drawer.



2. Pull up both knobs on the right and left side of the filter-strap drawer and turn them by 90°.



3. Slide filter-strap drawer to the rear.



4. Remove tank cover.



5. Loosen filter housing with filter wrench.



6. Screw filter housing off.



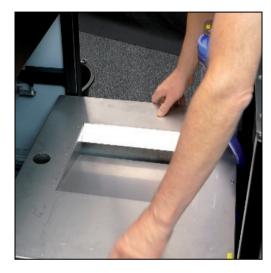
- 7. Insert new filter cartridge.
- 8. Mount filter housing again and **hand- tighten**. Do not use filter wrench!



- 9. Clamp roll with adhesive tape:
- Remove holder
- Mount the roll until click is heard.



10.Re-insert tank cover.



11. Pull filter-strap drawer to the front.



12. Turn both knobs on the right and left side of the filter-strap drawer by 90°. The knob must engage in the notch.



13. If required, move the filter-strap drawer until screws on both sides are engaged in the slotted hole.



14. Close the Cleanstream drawer.



15. Select service menu.

16. Select "Waterfall".

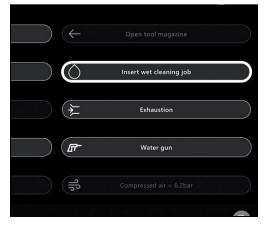
A flushing run of the compartment is started.

17. To end the flushing run: Select "Waterfall" again after approx. 15 seconds.



18. Select "Insert wet cleaning job".

The wet cleaning job flushes and cleans the coolant circuit and automatically ends.



# 5 Maintenance Confirmations

# 5.1 Maintenance confirmations by customer (weekly)

Maintenance	Date											
Cleaning and lubrication of collet												
Coolant test												
Water quality test												
Maintenance	Date											
Cleaning and lubrication of collet												
Coolant test												
Water quality test												
Maintenance	Date											
Cleaning and lubrication of collet									2400			2400
Coolant test												
Water quality test												
		1			1	1	1			I		l
Maintenance	Date											
Cleaning and lubrication of collet												
Coolant test												
Water quality test												
Maintenance	Date											
Cleaning and lubrication of collet	Date											
Coolant test												
Water quality test												
Maintenance	Date											
Cleaning and lubrication of collet												
Coolant test												
Water quality test												

# 5.2 Maintenance confirmations by customer (as required)

Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag												
Changing of filter fleece												
Changing of filter cartridge												
	1	1	1	1		1	1	ı	1	1		1
Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag												
Changing of filter fleece												
Changing of filter cartridge												
Matakanan	l 5.4.	l <b>5</b> .4.	D-4-	l 5-4-	D-4-	<b> </b>	<b> </b>	ا مید	<b>.</b>	l 5-4-	l 5-4-	l 5-4-
Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag												
Changing of filter fleece												
Changing of filter cartridge												
Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag		24.0	2410	5410	5410	24.0	24.0	24.0	2410			
Changing of filter fleece												
Changing of filter cartridge												
Changing of filter cartriage												
Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag												
Changing of filter fleece												
Changing of filter cartridge												
	i	1		i						i		i
Maintenance	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Changing of Airstream filter bag												
Changing of filter fleece												
Changing of filter cartridge												

# 5.3 Maintenance confirmations by technician

	1. Maintenance	2. Maintenance	3. Maintenance	4. Maintenance
	i. Maintenance	Z. Maintenance	3. Maintenance	4. Maintenance
Initials:	Signature:	Initials: Signature:	Initials: Signature:	Initials: Signature:
	5. Maintenance	6. Maintenance	7. Maintenance	8. Maintenance
Initials:	Signature:	Initials: Signature:	Initials: Signature:	Initials: Signature:
	Signature.	initials. Signature.	Signature.	Signature.
	O Maintannan	40 Maintainan	# W-t-t	42 Maintanana
	9. Maintenance	10. Maintenance	11. Maintenance	12. Maintenance
Initials:	Signature:	Initials: Signature:	Initials: Signature:	Initials: Signature:





**ISO 13485** ISO 9001

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