



# NEW GENERATION DIAMOND PROCESSING

**S**YSTEM



**QUICK OPERATION GUIDE** 



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#### **Abstract:**

This purpose of this document is to provide guidance on proper user workflow for the Quazer machine.

Please note that this document does not replace the Quazer user manual which contains detailed descriptions of all of the system's options.

#### NOTE

The workflows described in this document were tested and approved by Sarin. Any deviation from these workflows may cause damage to the stone. Sarin accepts no liability for any actions or omissions that deviate from the approved workflows.

### **Quazer general workflows:**



# How to perform sawing?

#### Flow chart:



#### **Steps - How to perform sawing:**

- 1. Power Hardware
  - a. Power ON the base machine
  - b. Power ON the cooling system
  - c. Power ON the laser system
- 2. Load Quazer application
  - a. Double click on the Quazer icon located on the desktop screen.



b. press the 'OK' button to begin the system homing procedure.



- 3. Perform pre working checks
  - a. Laser profiles Power check
  - b. Laser spot check
- 4. Select work mode orienttion cassette or single dop mode



5. Select the relevant sawing cassette (centered/two cassettes) in orienttion cassette mode or single/double side in single dop mode.



- 6. Perform the job planning to the stone
  - a. Move the table to the stone location using the arrow keys
  - b. Set log points (log top,start,end)



c. Enter the relevant job paramters.

	Parameters	Job List
Ξ	1. Job Parameter	\$
	Name	
	Туре	SW-HP-Da
	Height (µ)	5000
	Progressive Type	PRG-HP-De
	Power	LSR-Max
	Speed (mm/sec)	18
7	2 Side Paramete	re

d. Press the 'save job' button to finish current stone planning or 'save side' button to plan an addittional side in the stone.



e. Plan and addittional stone by reapeating stages 5-6 or press the 'verification' tab to proceed to the verification and execution stages.

7. Perform job verification



b. Accept, decline or skip All



- 8. Start the execution process
  - a. Press on the 'execution' tab to go to the execution screen



b. Click on the 'Start' button to start the execution



 Once processing was finished press the 'Reset cassette' button (in case working in orienttion cassette) or 'remove all jobs' in single dop mode to remove all jobs from the job list.



11. Repeat stages 4-11 to plan and execute addittional stones.

#### NOTE

Pre working checks must be done before working with the machine and/or on an everyday basis.

# How to use import from strategist ?

Flow chart:

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#### Steps - How to use import from strategist:

- 1. Power Hardware
  - a. Power ON the base machine
  - b. Powe ON the cooling system
  - c. Power ON the laser system
- 2. Load Quazer application
  - a. Double click on the Quazer icon located on the desktop screen.



b. press the 'OK' button to begin the system homing procedure.



3. Perform pre working checks

SARIN

- a. Laser profiles Power check
- b. Laser spot check
- 4. Select work mode import from strategist



5. Press on the drop down box and select the relevant pack file

$\nabla$	
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- 6. Perform job verification
  - a. Verify that the red cross and cassette cross match. If necessary adjust the red cross location by using the keyboard.



b. Press the log 'cassette cross' button



c. Press on the 'verfication' tab



In case of traditional strategist job:

i. Perform manual correction to the strategist arrow and Press the 'Accept' button to accept the arrow location (or the 'decline & next dop' button to decline, discard the job and contiune to the next job).

# Zoom Accept Of Strategist

In case of PIE strategist job:

i. Perform manual correction to the strategist arrow and Press the 'Accept' button to accept the arrow location (or the 'decline & next dop' button to decline, discard the job and contiune to the next job).



i. Perform manual correction to the first meeting point of both pie saw planes and press the 'accept' button for the second time.



ii. Perform manual correction to the second meeting point of both pie saw planes and press the 'accept' button for this third and final time.



Zoom: x1	Step: 3/3	Accept	Ve
Previous Side		llext Side	rifica
Save & Next Do	Decline	& Next Dop	tion

d. Press on the 'save & next dop' button

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- e. Repeat stage c-d to the next stone.
- f. Once all stones were verified press the 'cut verified' button



- 7. Start the execution process
  - a. Press the 'execution' tab to proceed to the execution screen



b. Click on the 'Start button' to start the execution



8. Once processing was finished press the 'Reset cassette' button to remove all jobs from the job list.



10. Repeat stages 4-9 to import addittional strategist stones.

#### NOTE

Pre working checks must be done before working with the machine and/or on an everyday basis.

# How to perform Shaping?

#### Flow chart:



#### **Steps - How to perform shaping**

- 1. Power Hardware
  - a. Power ON the base machine
  - b. Powe ON the cooling system
  - c. Power ON the laser system
- 2. Load Quazer application
  - a. Double click on the Quazer icon located on the desktop screen.



b. press the 'OK' button to begin the system homing procedure.



- 3. Perform pre working checks
  - a. Laser profiles Power check
  - b. Laser spot check
- 4. Select work mode orienttion cassette or single dop



5. Select the shaping cassette or shaping option in single dop mode.



- 6. Perform the job planning to the stone
  - a. Move the table to the stone location
  - b. Press on the 'choose shape' button and select the desired shape





d. Enter the relevant job paramters.

-	Overlays	Jobs
P	arameters	Job List
Ξ	1. Job Para	meters
	Name	
	Packet No.	
	Туре	Shaping Delicate
	Height (µ)	1500
	Progressive 1	Delicate 5w
	Power	5₩
	Speed (mm/s	28
	Outer loops	False

e. Press the 'save job' button to finish current stone planning.



f. Plan addittional stone by reapeating stages 4-6 or press the 'execution' tab to proceed to the execution stage.



- 7. Start the execution process
  - a. Press on the 'execution' tab to go to the execution screen



b. Click on the 'Start' button to start the execution



 Once processing was finished press the 'Reset cassette' button (in case working in orienttion cassette) or 'remove all jobs' in single dop mode to remove all jobs from the job list.



10. Repeat stages 4-9 to plan addittional stones.

#### NOTE

Pre working checks must be done before working with the machine and/or on an everyday basis.

# How to perform CVD sawing?

#### Flow chart:



#### Steps - How to perform CVD sawing

- 1. Power Hardware
  - a. Power ON the base machine
  - b. Powe ON the cooling system
  - c. Power ON the laser system
- 2. Load Quazer application
  - a. Double click on the Quazer icon located on the desktop screen.



b. press the 'OK' button to begin the system homing procedure.



3. Perform pre working checks

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- a. Laser profiles Power check
- b. Laser spot check
- 4. Select single stone working mode
- 5. Perform the job planning to the stone
  - a. Move the table to the stone location
  - b. Select on the 'choose shape' button



c. Press the 'industrial shapes...' button and select the relevent shape



-Undo	Log Top	Next >>	1
Log Center	X:200033 Y:8	18783 Z:0	
Log Top	X:200033 Y:8	8783 Z:0	0

e. Enter the relevant job paramters.

Log Center

1	Overlays	Jobs	
P	arameters	Job List	
Ξ	1. Job Para	meters	
	Name		
	Packet No.		
	Туре	Shaping Delicate	m
	Height (µ)	1500	
	Progressive 1	Delicate 5w	m
	Power	5 <del>W</del>	曲
	Speed (mm/s	28	
	Outer loops	False	

f. Press the 'save job' to finish current stone planning



g. Plan addittional stone by reapeating stages 4-5 or press the 'execution' tab to proceed to the execution stage.



- 6. Start the execution process
  - a. Press on the 'execution' tab to go to the execution screen



b. Click on the 'Start' button to start the execution



7. Once processing was finished press the 'remove all jobs' to remove all jobs from the job list.



8. Press Yes to approve job removal.



9. Repeat stages 4-9 to plan addittional stones.

#### NOTE

Pre working checks must be done before working with the machine and/or on an everyday basis.

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