TRAINING CHECKLIST

This document should be used by both Vekta training staff and qualified operators to train new operators. This program will cover all aspects of saw operation including safety, general operations, optimisation, supervisory elements, maintenance and basic engineering procedures.

Use this checklist to ensure all items relevant to training a new operator are covered. This should also be used to document that the trainee has had sufficient direction from the trainer to perform all tasks autonomously, without intervention by the trainer and all points have been covered.

> **Note:** This document should be completed for each new trainee to one of the specified levels: Operator, Supervisor or Engineer.

_____
Site

_____
Trainer

_____
Trainee

_____
Date

_____
Level

Main Outcome 1: Razer Anatomy ⧉

Below are listed the major fitted modules of the machine with their points of interest relevant to general operation and maintenance.

	Explained	Practised
❯ Automatic Infeed Table (AIT)	☐	☐

☐ Re-ref Sensors   ☐ Follower
☐ Reed Switch   ☐ Follower Carriage Linear Bearings
☐ AIT Gap Sensors   ☐ Follower Paddle Linear Bearings
☐ Follower Homing Sensor   ☐ Follower Sensor Array

	Explained	Practised
❯ Saw Chamber	☐	☐

☐ B-axis Homing Sensor   ☐ Blade Speed Sensor
☐ C-axis Homing Sensor   ☐ B-axis Clutch Sensor
☐ Y-axis Homing Sensor   ☐ Door Safety Sensor
☐ Z-axis Homing Sensor   ☐ Door Interlock Switch

- ❯ Feeders ☐ ☐
  - ☐ Fenceline Rollers
  - ☐ Side Clamp Rollers
  - ☐ Top Clamp Rollers
  - ☐ Drive Rollers
  - ☐ Pop-up Encoders
  - ☐ Photoelectric Sensors
  - ☐ Height Detection
  - ☐ Width Detection
  - ☐ Safety Sensors

- ❯ Electrical Cabinets ☐ ☐
  - ☐ Electrical Isolation Switch
  - ☐ Main PC
  - ☐ Electrical Circuit Breakers

- ❯ Waste Conveyor System ☐ ☐

- ❯ Outfeed Kickoff Table (OFK) ☐ ☐
  - ☐ Reed Switches

- ❯ Operator Console ☐ ☐

- ❯ Dust Extractor ☐ ☐
  - ☐ Dust Extractor Control Panel

- ❯ P3 Printer ☐ ☐
  - ☐ Print Heads
  - ☐ Print Module Cover
  - ☐ Ribbon Cable Cover
  - ☐ Carriage Linear Bearings
  - ☐ Printer Encoder

- ❯ Hydraulic Power Pack ☐ ☐

- ❯ Pneumatic Unit ☐ ☐

- ❯ Removable Guards ☐ ☐
  - ☐ Dome Hood
  - ☐ Other Guards

Main Outcome 2: Safety ⧉

	Explained	Practised
❯ Wear general PPE required for saw operation (consult any site policies).	☐	☐
❯ Fully isolate the machine (electrical and pneumatic).	☐	☐
❯ Identify all major hazards on the machine (electrical and mechanical).	☐	☐
❯ Differentiate between all light and buzzer modes.	☐	☐
❯ Locate the E-stop button and lanyards.	☐	☐

- Manually operate the Dust Extractor.
- Identify all additional safety features of the machine.

☐	☐
☐	☐

Main Outcome 3: Operator Level ⧉

	Explained	Practised
Perform the routine maintenance procedures.	☐	☐
Start up the machine properly.	☐	☐
Open, close and save a job file.	☐	☐
Navigate multiple open job files.	☐	☐
Log in and out of user accounts.	☐	☐
Manually resort the member list.	☐	☐
Select members.	☐	☐
Optimise all members.	☐	☐
Optimise selected members.	☐	☐
Understand the Materials List.	☐	☐
Load and stack the timbers correctly.	☐	☐
Understand the Cut functions.	☐	☐
Understand the Set To Uncut functions.	☐	☐
Use the cutting and moving speed sliders.	☐	☐
Start, stop and pause the saw in various ways.	☐	☐
Recut members from the member list or the optimised list.	☐	☐
Understand the Optimise On-the-fly Selected function.	☐	☐
Modify basic parameters of a member.	☐	☐
Understand the toolbar toggle buttons (Follower, Long Lead, AIT, Waste to Infeed and Job Sequencing).	☐	☐
Understand the saw loading options (2* Wide, 2* Thick and Rotate).	☐	☐
Understand the monitoring panel.	☐	☐
Use manual mode and material handling control.	☐	☐
Clean and replace the Print Heads.	☐	☐
Understand the Diagnostics window and error notification system.	☐	☐
Use Vekta Rescue.	☐	☐
Shut down the machine properly.	☐	☐

Main Outcome 4: Supervisor Level ⧉

	Explained	Practised
Create/Modify members using the Complete Member Editing window.	☐	☐
Modify the materials database.	☐	☐

- Use the offcuts feature.
- Understand the pre and post-optimisation sorting.
- Find the right optimisation settings.
- Understand the basics of optimisation.
- Reduce waste percentage and offcuts.
- Change the Member Designation Label.
- Add/Edit users and change access levels.

Main Outcome 5: Basic Maintenance

	Explained	Practised
Replace the Saw Blade.	☐	☐
Remove all necessary guards for full service (Feeder Guards, Dome, Y-axis End Covers).	☐	☐
Blow down the entire saw.	☐	☐
Locate all grease points, use the correct type and volume of grease.	☐	☐
Locate the Timing Belts and check their tensions.	☐	☐
Clean and replace the Print Heads.	☐	☐
Clean the Drive Rollers.	☐	☐
Clean and replace the Dust Extractor Bags.	☐	☐
Inspect, clean and replace the Photoelectric Sensor Receivers and Emitters on the Feeders (Feeder Sensors) and on the AIT (Re-ref Sensors).	☐	☐

Main Outcome 6: General Troubleshooting

	Explained	Practised
Understand the Diagnostics window and error notification system.	☐	☐
Reset B-axis clutch trip.	☐	☐
Diagnose and rectify material feeder slippage error.	☐	☐
Diagnose and rectify Urgent FE error.	☐	☐
Diagnose and rectify servo motor Amp Fault.	☐	☐
Diagnose and rectify material dimension error.	☐	☐
Diagnose and rectify material length error.	☐	☐
Diagnose and rectify common AIT loading errors (gap to close, timber not square and wrong material dimension or length).	☐	☐
Clear printer out of sequence error.	☐	☐
Diagnose and rectify sensor blocked error.	☐	☐

ASSESSMENT CHECKLIST

Using both observational (O) and verbal (V) methods, try to cover as much of the training material as possible to assess the operator's competency in using the saw. It is up to the trainer's discretion how to assess the trainee based on existing observations and demonstrated knowledge. A record of how the trainee is assessed should be kept throughout the process.

For each assessment, the trainee should be awarded an S for satisfactory performance or NS for non-satisfactory performance. The trainee should then be given further direction for the non-satisfactory components and assessed again.

☐ By checking this box, I, _____ , certify that _____ has
                                 Trainer   Trainee

demonstrated complete competency in _____ level saw operation.
                                                 Level

_____
Date

Main Outcome 1: Razer Anatomy

> Identify all major fitted modules of the machine.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Identify all points of interest relevant to general operation and maintenance.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

Main Outcome 2: Safety

> Fully isolate the machine (power and air).

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Identify all major hazards on the machine.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Differentiate between all light and buzzer modes.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Manually operate the Dust Extractor.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Identify and use all additional safety features of the machine.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

Main Outcome 3: Operator Level

❯ Perform the daily maintenance procedures and start up the machine properly.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Open, close and save a job file (including open and print the materials list, load and stack the timbers correctly).

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Log in and out of user accounts.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Optimise all members of a job then a subset of a specific material and check the materials list.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Use the cutting and moving speed sliders.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Pause, stop and restart the saw from any point in a job.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Recut a member from both the member list and optimised list.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

❯ Run the Optimise On-the-fly Selected function.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Understand the toolbar toggle buttons (Follower, Long Lead, AIT, Waste to Infeed and Job Sequencing) and saw loading options (2* Wide, 2* Thick and Rotate).

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Use manual mode and material handling control.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Clean and replace the Print Heads.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Shut down the machine properly.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

Main Outcome 4: Supervisor Level

> Modify an existing member using the Complete Member Editing window.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Modify the materials database: add new material, turn material off, change material priority. Show effect on optimisation.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Use the offcuts feature: add new offcut, turn offcut off, disable offcuts feature and change offcut optimisation settings. Show effect on optimisation.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Change the sorting values to reorder members on already optimised job for two different purposes: easy loading and easy sorting.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Change settings to reduce waste on already optimised job (Look Ahead, Priority Emphasis, Materials, Offcuts or Sorting).

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Change the Member Designation Label.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Add a new supervisor to the user list and provide a new password.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

Main Outcome 5: Basic Maintenance

› Replace the Saw Blade.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Remove all necessary guards for full service (Feeder Guards, Dome, Y-axis End Covers).

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Locate all grease points, use the correct type and volume of grease.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Locate the Timing Belts and check their tensions.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Clean and replace the Print Heads.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Clean the Drive Rollers.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Clean and replace the Dust Extractor Bags.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

› Clean and replace the Photoelectric Sensor Receivers and Emitters on the AIT and Feeders.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

Main Outcome 6: General Troubleshooting

› Open the Diagnostics window and demonstrate knowledge of fault information.

Method:
☐ O
☐ V

Result:
☐ S
☐ NS

> Reset B-axis clutch trip.

Method:

☐ O
☐ V

Result:

☐ S
☐ NS

> Diagnose and rectify material feeder slippage error.

Method:

☐ O
☐ V

Result:

☐ S
☐ NS

> Diagnose and rectify Urgent FE error and servo motor Amp Fault.

Method:

☐ O
☐ V

Result:

☐ S
☐ NS

> Diagnose and rectify common AIT loading errors (gap to close, timber not square and wrong material dimension or length).

Method:

☐ O
☐ V

Result:

☐ S
☐ NS