

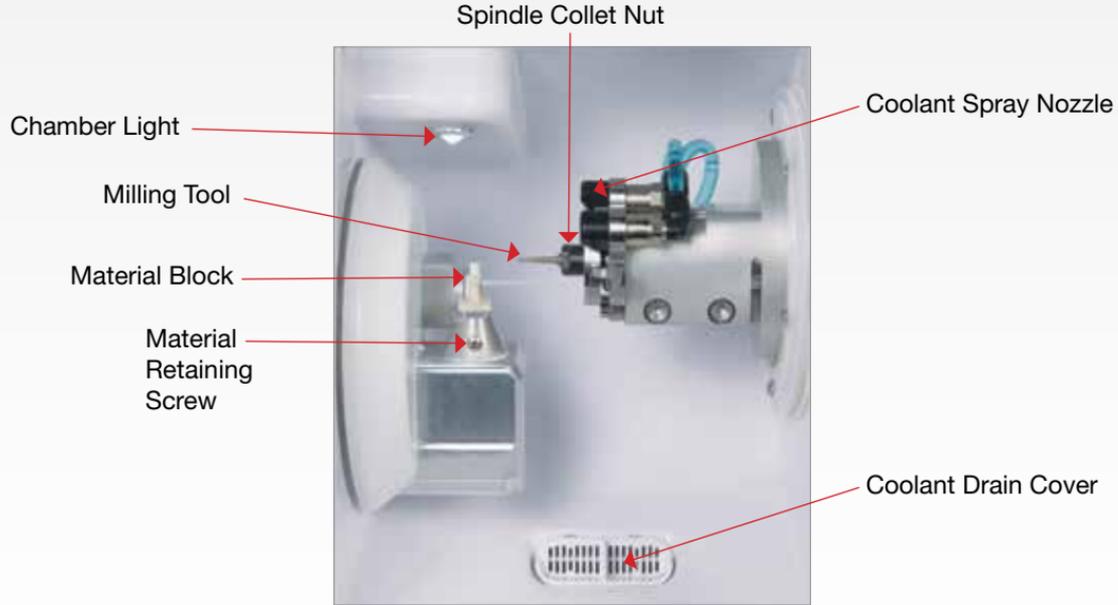
QUICK-START GUIDE



System Components

Getting to know your TS150e



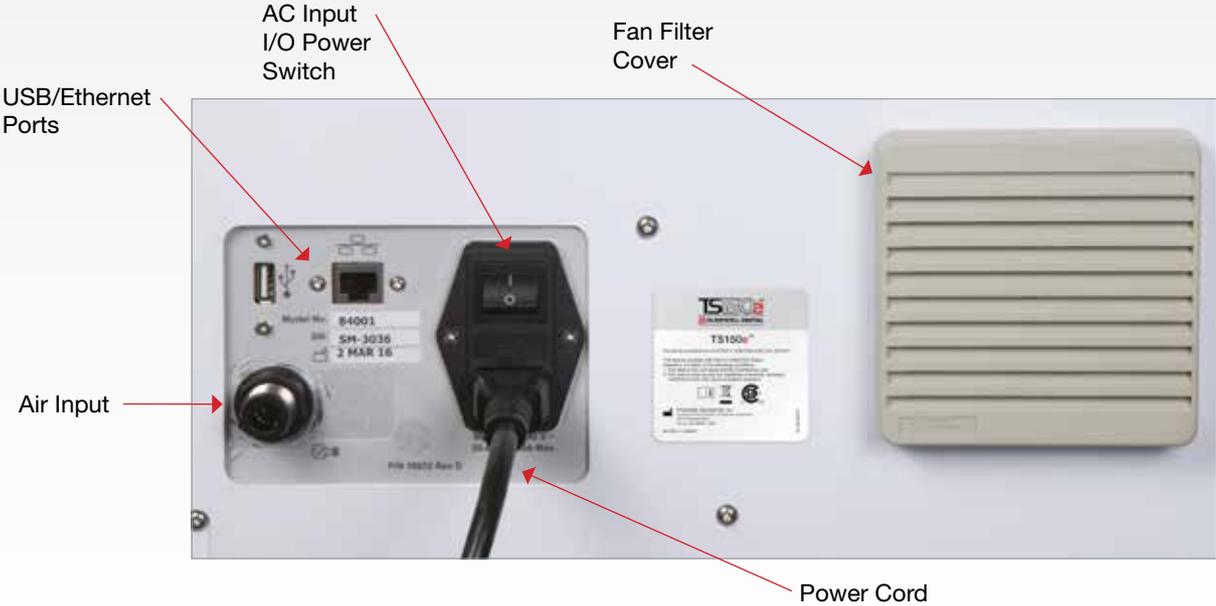


Setup

Basic Setup

- 1** Locate the TS150e™ mill near the office air supply in a spare room on a sturdy table, desk or countertop capable of supporting 150 lbs.
- 2** Set up the computer components: monitor, keyboard and mouse close to the mill.
- 3** Connect the office air supply to the air inlet located on the back of the unit. (Air Consumption Requirement: 0.9 CFM or greater with a psi range of 50–80 psi)
- 4** Connect the power cord to the system and to a grounded power outlet.
- 5** Connect the computer to the mill with the USB cable.
- 6** Switch the power on at the power inlet on the back of the unit.
- 7** Fill the coolant trough with a mixture of distilled or reverse osmosis water and Glidewell Dental Mill Coolant Concentrate. (See Routine Maintenance for instructions.)

Rear Panel Components



Running the TS150e

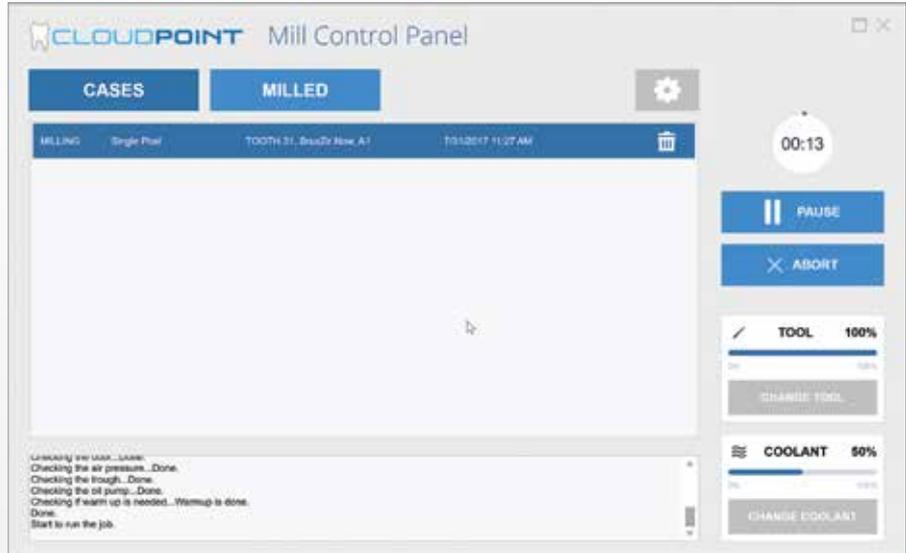
Mill Preparation

- 1 Once the computer system is on, the CloudPoint™ Mill Control Panel will open onto the computer screen.

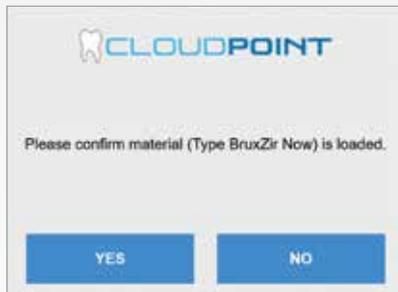
The TS150e will go through a self-check sequence which will verify that motion control and other systems are working correctly.



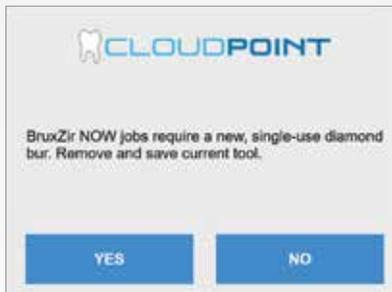
- 2 After the FastDesign™ software sends the cases to the Mill Control Panel, the cases will be loaded automatically onto the screen. Once initialized, select the case and press the RUN button.



- 3** The mill will prompt you to confirm that the correct material is loaded for the particular case. Once this material is loaded, press YES.

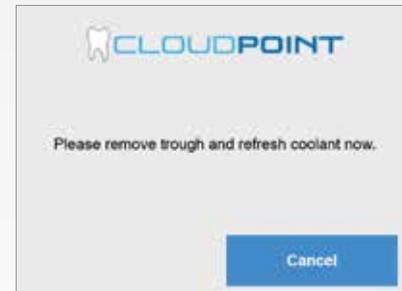


- 4** The mill will prompt you to load a new tool when the tool life has expired or BruxZir NOW material is loaded. Click YES to load the tool.



After loading the tool and closing the mill door, click YES.

- 5** The mill will prompt you to change the coolant if the coolant life has expired.

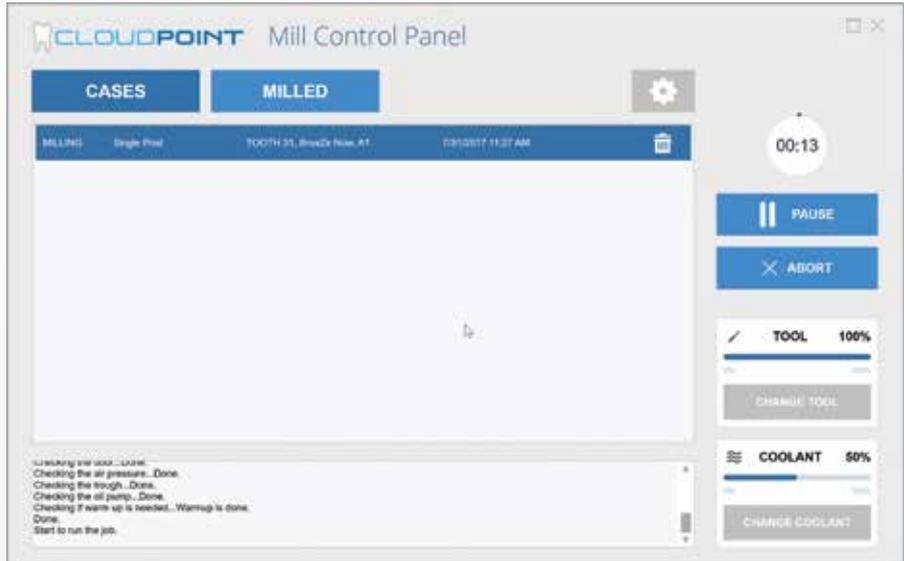


Note: The mill will prompt you to close the door whenever the door is open. Milling will not begin until the door is closed.

- 6 Allow the spindle to warm up to temperature if needed.



- 7 With the door closed, the TS150e will automatically begin machining. The timer on the top right corner will indicate how much time has passed. The blue outer ring will indicate how much longer the process will take to complete.



- 8** The process can be paused at any time by clicking the PAUSE button on the top right corner of the screen.



After pausing, press the RUN button to continue milling.



- 9** When the job is finished, click OK.



- 10** Remove the milled restoration and finish as needed.

General Operation

Loading Material

Position slot on mandrel toward rear of mill, so the retaining screw hole is visible above the retaining screw. Push mandrel down until fully seated.

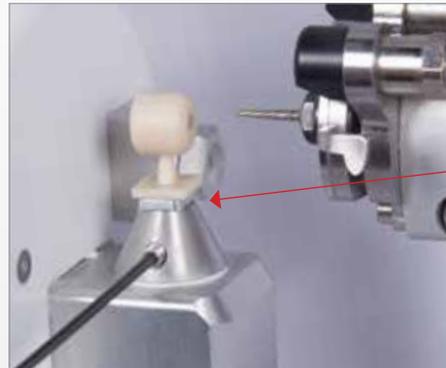


Material Block

Mandrel

Retaining Screw

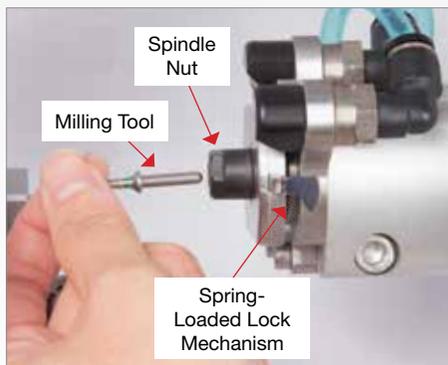
Using the allen wrench, tighten the retaining screw clockwise. As the fit of the screw becomes tight, gently align the retaining screw hole with the screw. **Fully seat** and **firmly tighten** the screw into the hole until the block sits flat against the screw.



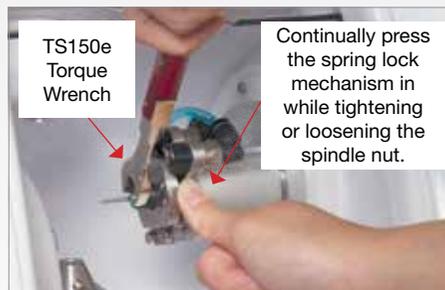
No Gap, Fully Seated

Removing and Loading a Tool

IMPORTANT: The spindle contains a spring loaded mechanism lock that prevents spindle rotation during the installation or removal of the milling tool. Once the spindle is locked in place, pressure on the lock mechanism must be maintained throughout the process.



Remove the tool from the collet. Rotate the spindle while pressing the lock mechanism until the spindle locks into place. Then, rotate the nut counter-clockwise using the TS150e torque wrench while pressing the lock mechanism. Remove the tool.



Insert the new tool completely into the collet. Rotate the spindle while pressing the lock mechanism until the spindle locks into place. Then, rotate the nut clockwise using the TS150e torque wrench while pressing the lock mechanism. When the red-handled torque wrench yields during tightening, tool installation is complete.

CAUTION: Release the lock mechanism BEFORE running the milling program to prevent mill damage. Make sure the spindle rotates freely and the lock mechanism is disengaged.

You are now ready to run the program.

Tool Life

OBSIDIAN®, VITA ENAMIC®, LAVA™ ULTIMATE, CERASMART™ AND COMPOSITE MATERIALS ONLY

Each tool will mill 5 restorations. The mill will prompt you to load a new tool when the tool life has expired, click YES to change the tool.

After loading the tool, click YES.

BRUXZIR® NOW MATERIAL ONLY

The mill will prompt you to load a new tool every time BruxZir NOW material is loaded. Each job requires a new single-use diamond bur.

Routine Maintenance

Cleaning, Refilling the Coolant Trough

The Mill Control Panel will prompt coolant changes when the coolant life has expired. For frequent coolant changes, click CHANGE COOLANT on the Mill Control Panel.

Cleaning the Coolant Trough

WARNING: Sharp glass particles may be present on the filters or in the trough. Wear gloves when emptying and cleaning the trough.

- Press the release button and carefully remove trough using the trough handle.
- Remove the main filter. Discard any large particles on the filter. Invert the filter and rinse with water from the underside to remove fine particles.
- Remove the top rubber drain plug to empty the trough. Empty the trough of used coolant and debris. Without unplugging the internal filter, thoroughly rinse the internal filter and trough with water.
- Reinsert the top rubber drain plug into its original place.

IMPORTANT: Make sure the top rubber drain plug is in place before adding fresh coolant and reinserting trough.



Coolant Trough Release Button



Top Rubber Drain Plug

Main Trough Filter

Internal Trough Filter

Refilling the Coolant Trough

- Fill the trough with 2.4 L (2.5 quarts) of distilled or reverse osmosis water and 240 mL (8 fl. oz.) of Glidewell Dental Mill Coolant Concentrate. The coolant mixture level should be near the top edge of the handle.

IMPORTANT: DO NOT USE tap water to make coolant. Tap water use will cause scale buildup and premature failure of the seals.

- Place the main trough filter on top of trough.
- Carefully reinsert trough until it clicks into place.



Coolant Window
and Trough Handle

IMPORTANT: Only use Glidewell Dental Mill Coolant Concentrate. Use of other fluids may damage the machine and void the warranty.

Cleaning the TS150e

Clean the external surfaces of the TS150e with a mild detergent.

Clean the internal surfaces of the machining chamber on a **weekly basis** with a lint-free cloth and distilled water.

WARNING: Sharp particles may be present on the drain cover. Wear gloves. Use care when handling the drain cover and disposing of the contents.

- Remove the lower drain cover by pulling it toward the front of the unit. Empty any glass fragments from the drain cover, rinse clean and reinsert into the machining chamber.

Preventive Maintenance

Cleaning the Spindle Collet and Nut

Clean the spindle collet and nut threads **periodically** or when loading tools is difficult.

1 Unscrew the nut and remove the nut and collet from the machine. Pull the collet from the nut.

2 Use a spindle brush and a cotton swab to remove any debris from the inside of the nut. Use white mineral oil on a cotton swab to help clean the threads.

3 Clean any debris from both the collet and the threaded portion of the spindle with a clean cloth.

4 Reinstall the collet and nut back into the machine.

CAUTION: DO NOT tighten at this step.

5 Install a new Tool. (See Removing and Loading a Tool section for details.)



Cleaning the Fan Filter

Clean the fan filter of dirt and lint **every six months**.

WARNING: DO NOT breathe dust. Wear appropriate personal protective equipment including mask and gloves.

- 1** Power down the system. Remove the AC cord from the rear of the unit.
- 2** Unsnap the fan filter cover from the fan filter housing and remove the filter.
- 3** Rinse the filter with warm water and a small amount of dishwashing detergent.
- 4** Dry the filter completely
- 5** Reinsert the dry filter into the filter housing and snap the fan filter cover into place.
- 6** Reattach the power cord to the AC supply and turn on the system.

Repair

CAUTION: Do not attempt to repair or disassemble any part of the system. Any such action may void the product warranty.

For scheduling maintenance or in the event of a TS150e system malfunction, contact your dealer for Technical Support.

Troubleshooting Guide

Symptom	Possible Cause	Resolution
No power to unit	Power switch at the AC inlet is off (0)	Switch on AC power at the rear panel.
	AC cord not inserted correctly at rear panel or outlet	Reinsert power cord and check for power at the AC outlet.
	Blown fuse at AC supply	Replace the AC fuse with the correct fuse. (See System Specifications.)
Delays in machining, pop-up messages showing low air pressure	Inadequate/too much air supply from system	Resize air compressor system to accommodate the load. Call your Technical Support Specialist.
	Low air supply pressure	Increase the office supplied air pressure to deliver at least 50 psi at the rear panel during machining. Call your Technical Support Specialist.
	Too small of an air supply line	Increase tubing size.
	Too long of a hose from the office air supply to the air inlet on the back of the mill	Shorten the hose and relocate the mill so it is closer to the office air supply. Call your Technical Support Specialist.
Very high-pitched whine coming from spindle, especially when tool is not in contact with material	Spindle bearings worn	Call your Technical Support Specialist.

Symptom	Possible Cause	Resolution
Repeated tool breakage and/or broken blocks	Coolant stream not directed at tool	Visually check to verify coolant is striking tool along length; if not, call your Technical Support Specialist.
	Coolant system not pumping correct amount	Verify coolant stream is adequate; if not, call your Technical Support Specialist.
Failure of machine during initialization routine, display of error	Motion control failure	Contact your Technical Support Specialist.
Restorations excessively in or out of occlusion	Failure of tool touch probe	Contact your Technical Support Specialist.
	Tool touch probe out of calibration	Contact your Technical Support Specialist.
Coolant trough will not lock into position	Locking latch in "locked" position	Press trough release button, reinsert trough into its slot until it clicks into place.
Collet nut is removed, but collet remains in spindle	Collet nut overtightened	Break collet free from the spindle by gently tapping the collet with something non-metallic.

System Specifications – TS150e Mill

Product Name	TS150e Mill
Power Input Voltage	100–240 V~(Auto Range)
Power Input Frequency	50–60 Hz
Power Input Current	4.0 A Max
Power Input Fuse (115VAC/240VAC)	4.0 A, Slow Blow ¼ x 1-¼" or 6.35 x 31.75 mm
Air Consumption	0.9 CFM or greater with a psi range of 50–80 psi
Operating Temperature Range	18 °C to 32 °C (stabilized for 1 hour at operating temperature after cold storage prior to operation)
Storage Temperature Range	-18 °C to 60 °C
Operating and Storage Humidity Range	0% to 85% (Non-Condensing Relative Humidity)
Water Ingress	Non-immersion with exception of matching area, damp wipe only on outside.
Weight	55 kg (115 lbs)
Dimensions (H,W,D)	44.5 cm x 53 cm x 58.5 cm 17.5 in x 21 in x 23 in



Starting Up

Verify that the power switch on the back of the TS150e is in the **ON** position.



Shutting Down

To shut down the system, press power switch on the back of the TS150e to **OFF** position.

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