# TECHNICAL DATA PACKAGE

December 13, 2023

# 23A00D288 (T3300.002)

SINGLE SPEED CUTTING MILL 230V, 50/60Hz

# TABLE OF CONTENTS

I. Ma	achine Specifications	3
Ia.	Mechanical Overview	3
Ib.	Electrical Overview	3
Ic.	Controls	4
Id.	Operation	5
Ie.	Renderings	6
If.	Optional Vacuum Sample Recovery System	9
II. Ma	achine Testing Qualification & Validation	10
IIa.	Objective	10
IIb.	Scope	10
IIc.	Responsibilities	10
IId.	Reference	10
IIe.	Factory Acceptance Test (FAT)	11
IIf.	Installation Qualification (IQ)	12
IIg.	Operation Qualification (OQ)	13
IIh.	Site Acceptance Test (SAT)	14
IIi.	Performance Qualification	14
III. Cu	ıstomer Sign Off	15

# I. MACHINE SPECIFICATIONS

### IA. MECHANICAL OVERVIEW

#### DIMENSIONS

Width: 15.0" ± 0.50"
 Height: 12.8 ± 0.50"
 Depth: 22.2" ± 0.50"
 Chamber Size: 1.575" Diameter

### SIZE & CAPACITY

• Speed: 1000 RPM free spindle speed

• Weight:  $95lbs \pm 10lb$ 

• Max Sample Input Size: 0.5" Diameter

Continuous Torque: 1.4 NmQty. (2) Stationary Blades

• Qty. (4) Rotating Blades

• NSF UL Certification available upon request

### MATERIAL

• Exterior panels: Powder-coated steel

• Hopper: 300 Series Stainless Steel

• Sieve: 316 Stainless Steel

### IB. ELECTRICAL OVERVIEW

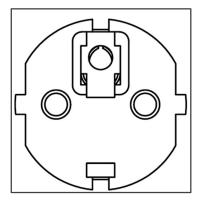
### **FEATURES**

• 1/2 HP AC Motor

• 230V, 50/60Hz, Single Phase

• Max amperage: 3 Amps

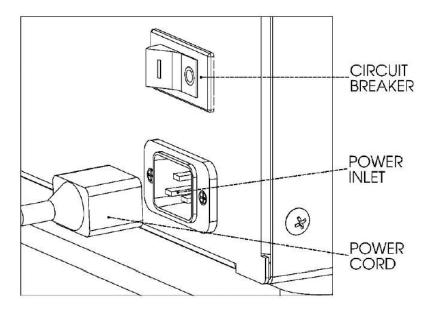
• Type F, IEC 884/CEE7-VII power cord:

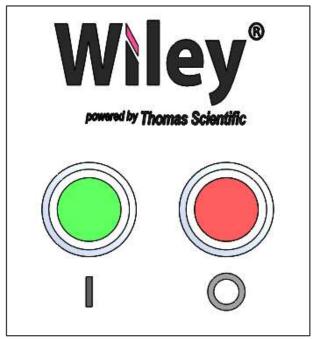




## IC. CONTROLS

- 1. To power the mill, first turn on the black power switch located on the rear of the machine.
- 2. Then press the green start switch to start mill rotation.
- 3. To stop the mill, press the red stop button located on the front of the machine.





### ID. OPERATION

- 1. The T3300.002 mill has been used successfully for a wide variety of materials. Samples should be free of hard inorganic material, although a small amount of such material, smaller than 24 mesh, usually will not interfere with milling. Washing such material from samples will, however, prevent any problems and protect the mill.
- 2. Samples containing excessive moisture or oil cannot be satisfactorily run through the mill since they tend to cling to the walls of the chamber. It is recommended that these samples be dried or given preliminary extraction with suitable solvents before milling.
- 3. Feed the sample into the hopper slowly enough so that the mill does not slow down or become jammed. Optimum feed rate will vary with the type of material being ground. A sliding shutter at the bottom of the hopper controls the rate of feed.
- 4. Four hardened steel knives work with a shearing action against two stationary knives mounted in the periphery of the chamber. A stainless-steel screen is fitted to the frame in such a way that no material can come out of the grinding chamber until it is fine enough to pass through the mesh of the screen. Three screens of 20, 40, and 60 mesh respectively, are furnished with each mill. (Other sieves, meshes, and screens are available as accessories).

**NOTE**: It may be necessary to step down through sieve sizes to achieve the smallest possible sample sizes.

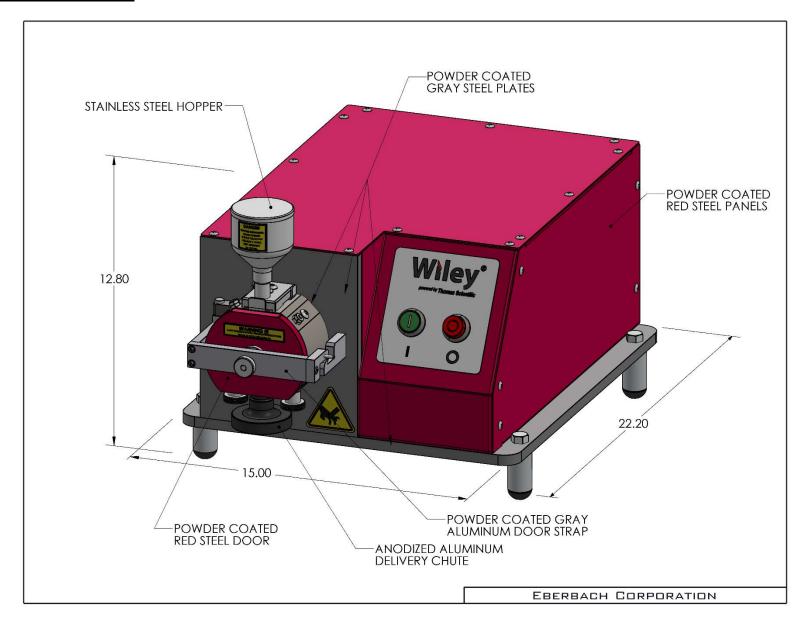
**NOTE**: To interchange screens, loosen the two hand wheels at the bottom of the mill, until screen alignment pins disengage. Remove and replace screen and tighten hand wheels.

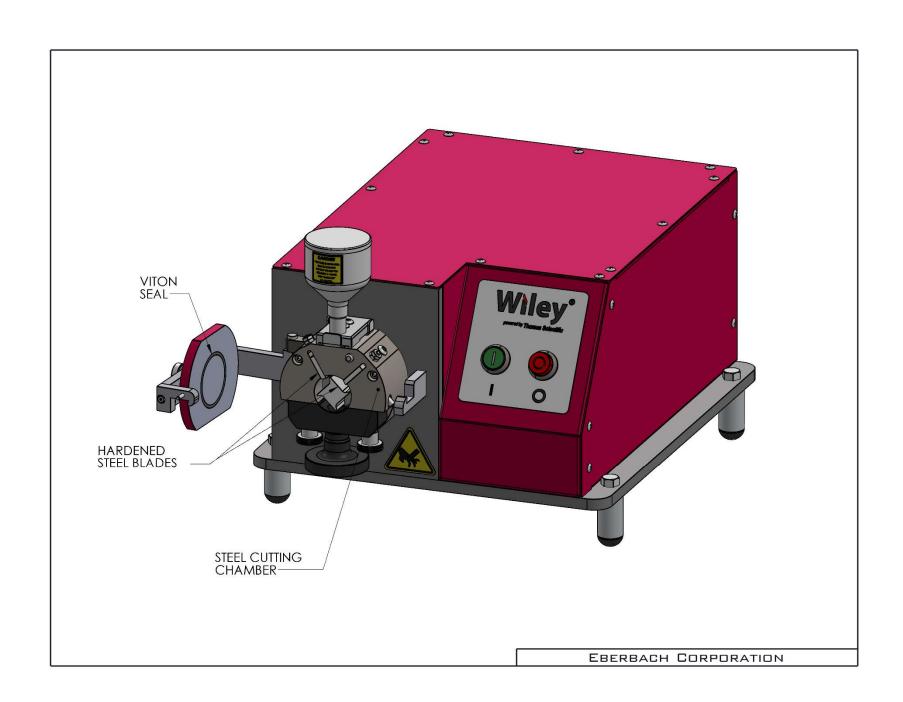
5. T3300.002 is supplied with the following: 1x Plunger, 1x Hopper, 3x Sieves (20, 40, & 60 mesh) 1x delivery chute, 1x Jar adaptor, 3x 4oz glass jars, 1x Toolset, 1x brush, and 1x scrapper, see page 8 below for more details.

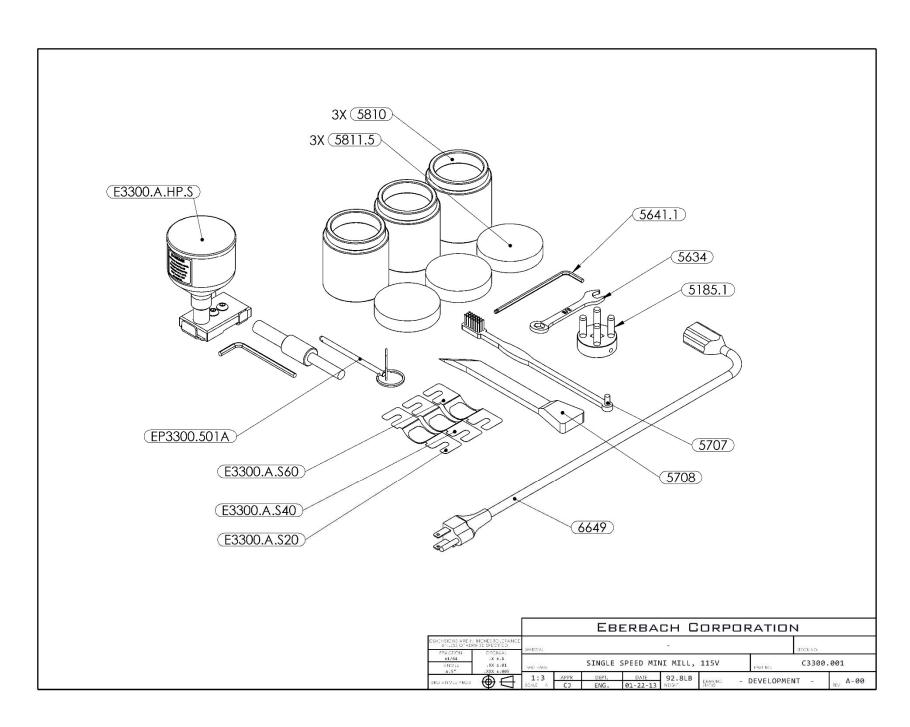
**NOTE**: A bag or sack can be fastened to the delivery chute in place of the glass jar.

**NOTE**: Rotating blades must be replaced as a set.

### IE. RENDERINGS

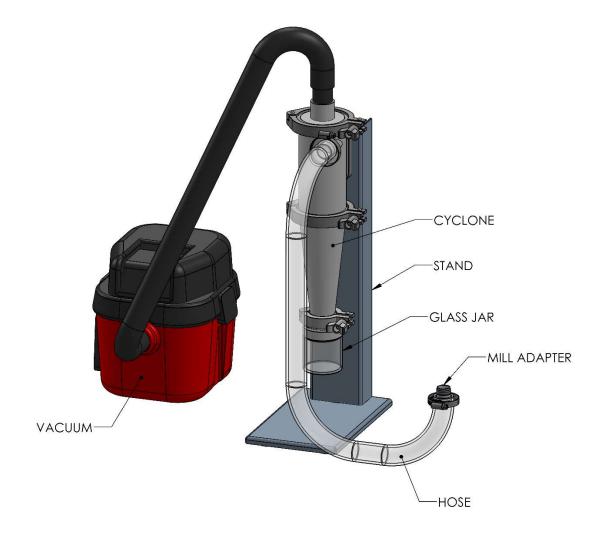






## IF. OPTIONAL VACUUM SAMPLE RECOVERY SYSTEM

- Assembly name: T3303.003.002
  - o Attaches to the T3300.002 mill to increase sample recovery
  - o Includes vacuum, cyclone separator, stand, glass jar, hose, and mill adapter
  - o Able to be disassembled for easy cleaning



# II. MACHINE TESTING QUALIFICATION & VALIDATION

### IIA. OBJECTIVE

The purpose of this protocol is to provide comprehensive document that validates the T3300.002 conforms with the quoted specifications; after manufacturing (FAT), prior to shipping (IQ), upon receipt at client's facility (OQ), and after installation at client's facility (SAT).

### IIB. SCOPE

This technical data package includes inspection procedures and acceptance criteria of tests to be performed. The scope of this document is limited to the T3300.002.

### IIC. RESPONSIBILITIES

Responsibilities between Eberbach and Client are defined as follows:

Task	Responsible Group
Prepare FAT/IQ/OQ/SAT Documentation	Eberbach
Perform FAT	Eberbach
Provide FAT Data to Customer	Eberbach
Perform IQ/OQ/SAT	Client
Review & verify the IQ/OQ/SAT	Client
Approve the IQ/OQ/FAT/SAT	Client

Eberbach is responsible for:

- Preparing the IQ/OQ/FAT/SAT documentation
- Performing FAT
- Provide FAT documentation to customer
- Installation support
- Use and Care manuals

Client is responsible for:

- Reviewing and approving this IQ/OQ/FAT/SAT documentation
- Performing the IQ/OQ/SAT
- All rigging activities required
- All electrical installation requirements

### IID. REFERENCE

• T3300.002 Use and Care

# IIE. FACTORY ACCEPTANCE TEST (FAT)

(Eberbach's Responsibility)

Step	Description	Specification or Acceptance Criteria	Result	
Step			Pass	Fail
1	- Machine assembly	V-Belt tension is set.		
2		Check for proper AC cord		
3	Verify max speed	Run machine and record speed		
4	Stop Button verification	Cutting Mill comes to a complete stop when the red power switch is press		
5	Verify rotation of cutting head	Counterclockwise rotation when viewed from front of machine.		
6	Check Blades	Verify Blades are sharp and free of defects		
7	Machine assembly	Record blade gap:		
8	Machine documentation Completed	Verify the Use and Care for the machine is completed and packaged with the machine.		
9	Machine Accessories	Verify the Accessories for the machine is complete and packaged with the machine.		
10	Machine Power Cord	Verify the Power Cord for the machine is packaged with the machine.		
11	Inspect equipment before packing	Verify machine panels and base are free from scratches and sharp edges.		

# IIF. INSTALLATION QUALIFICATION (IQ)

(Client's Responsibility)

Step	Description	Specification or Acceptance Criteria	Result	
			Pass	Fail
1	Space Requirements	Measure installation space for placement of equipment. 22.00" x 25.90" (Width x Depth)		
2	Electrical Power	Check for electrical requirements. 230V, 50/60 Hz		
3	Equipment Inspection	Inspect shipped products for signs of damage that may have occurred during shipping.  Keep packaging material until Operation Qualifications have been completed.  Contact Eberbach immediately if any shipping damage has occurred.		
4	Equipment documentation provided by Eberbach	Verify receipt of Use and Care from Eberbach		

# IIG. OPERATION QUALIFICATION (OQ)

(Client's Responsibility)

Step	Description	Specification or Acceptance Criteria	Result	
			Pass	Fail
1	IQ completed	Has the IQ been performed by the client?		
2	Inspect equipment upon receipt	Validate that the equipment was received in good condition and that there is no damage to the equipment or packaging.		
3	Equipment set up	Unpack & assemble the equipment per IQ.		
4		Verify the equipment/machine set up is completed.		
5	Begin SAT	Client to conduct SAT		

## IIH. SITE ACCEPTANCE TEST (SAT)

(Client's Responsibility)

Step	Description	Specification or Acceptance Criteria	Result	
ыер			Pass	Fail
1	Machine assembly	V-Belt tension is set.		
2		Check for proper AC cord		
3	Verify max speed	Run machine and record speed		
4	Stop Button verification	Cutting Mill comes to a complete stop when the red power switch is press		
5	Verify rotation of cutting head	Counterclockwise rotation when viewed from front of machine.		
6	Check Blades	Verify Blades are sharp and free of defects		
7	Machine assembly	Record blade gap:		
8	Machine documentation Completed	Verify the Use and Care for the machine is completed and packaged with the machine.		
9	Machine Accessories	Verify the Accessories for the machine is complete and packaged with the machine.		
10	Machine Power Cord	Verify the Power Cord for the machine is packaged with the machine.		
11	Inspect equipment before packing	Verify machine panels and base are free from scratches and sharp edges.		

# III. PERFORMANCE QUALIFICATION

Eberbach provides custom engineering solutions. Please contact Eberbach for custom IQ/OQ/PQ for specific work.

# III. CUSTOMER SIGN OFF

December 13, 2023

# T3300.002

# SINGLE SPEED CUTTING MILL

230V, 50/60HZ

All purchases are governed by the legal contract available online at <a href="https://www.eberbachlabtools.com/About-Us/Terms.html">www.eberbachlabtools.com/About-Us/Terms.html</a> (the "Terms"). Buyer agrees that this Technical Data Package is governed in all respects by the terms in the relevant quotation and the Terms (and only the Terms) which together form a binding contract between Eberbach and Buyer. The Terms are incorporated herein by reference and this Technical Data Package or Eberbach's acceptance of this order is expressly limited to, and expressly made conditional on, Buyer's acceptance of the Terms.

Buyer expressly acknowledges that the Products purchased pursuant to this Technical Data Package are "Custom Products" as described in the Terms.

The person executing this Technical Data Package on behalf of Buyer is an authorized representative of Buyer; this Technical Data Package has been duly and validly executed and delivered by Buyer and constitutes the legal, valid, and binding obligation of Buyer, enforceable against Buyer in accordance with its terms.

Name	Title	
Signature		