



1-Touch Vibratory Sieve Shaker SS-10



21 Washington Avenue
Scarborough, ME



MYERS
Construction Materials Testing Equipment

888.293.2121
sales@myerstest.com
www.myerstest.com

Safety Instructions

WARNING!!

This machine operates on electric current. Improper operation could result in electrical shock, electrocution, or an explosion!

1. **ALWAYS** make sure the motor and other electrical components are appropriate and properly configured for your intended use and available power source.
- *The 1-Touch Vibratory Sieve Shaker is configured to operate on 115V/60Hz power supplies.*
2. **ALWAYS** check electrical wiring for loose connections and for pinched or frayed wiring.
3. **ALWAYS** use properly-wired, three-pronged plus, or otherwise ground the machine.
4. **ALWAYS** disconnect and lock out power supply before performing maintenance and repairs.

WARNING!

- **DO NOT** operate the machine without having all covers and case in place.
- **ALWAYS** unplug or disconnect machine from the power source when the units not in operation.

1-Touch Vibratory Sieve Shaker Introduction

The 1-Touch Vibratory Sieve Shaker for 8in and 200mm sieves combines the particle sizing technology that is fast, and provides accurate separations. The three-dimensional sieving action evenly distributes and continuously reorients particles across the mesh surface to insure optimum sieving performance. Power level, sieving time and interval pauses are all controlled and programmed on the Touch Screen.



8in Round Test Sieves

Unpacking & Set-Up:

1. The SS-10 weighs approximately 90lb, make sure to use appropriate equipment to uncrate the sieve shaker.
- *Wear safety glasses and work gloves.*
2. Before opening examine the shipping carton for signs of damage.
- *If there is damage report to the shipper immediately. Leave the carton as intact as possible to facilitate return shipping.*

NOTE: Numbers in parentheses refer to the SS-10 Parts Diagram.

3. Lift the Base Assembly Item (1) from the carton, position it on a solid, level work surface. Then examine the unit again for any possible damage that may have been concealed.
4. The Plastic Clearance Spacer (2) is secured for shipping to the top of the SS-10 Base Assembly with three 1/4-20x 1.75 stainless steel flat-head screws (4). Using the Allen Key wrench, remove the three screws and set aside. Leave the spacer on top of the base assembly.
5. The Sieve Stack Assembly includes partially assembled:
 - Two Clamp Rods (5)
 - Bottom and top Covers (3 and 6)
 - Clamps (9)
 - Top and base Gaskets (12 and 13)
6. To complete assembly, rotate the Clamps so that the tabs are facing outward. Slide the Top Cover Plate up and secure it to the clamps by installing the 10-32 x 1 Shoulder Bolts (10) through the bottom of the plate into the threaded holes in the bottom of each clamp. Tighten securely.
7. Place the Sieve Stack Assembly on top of the plastic Clearance Space. Aligning the three holes in the spacer and base plate with the threaded holes in the top of the base assembly. Install the three stainless steel flat-head screws, and tighten securely.
8. Install the adhesive-backed, peel and stick Base Gasket (13) into the recess in the Bottom Cover (3).
9. Move the assembled SS-10 into place on a solid and level work surface. Insert the female end of the included power cord into the power connection on the back of the SS-10. Power ON/OFF is controlled by the rocker switch adjacent to this connection.

Clamping System:

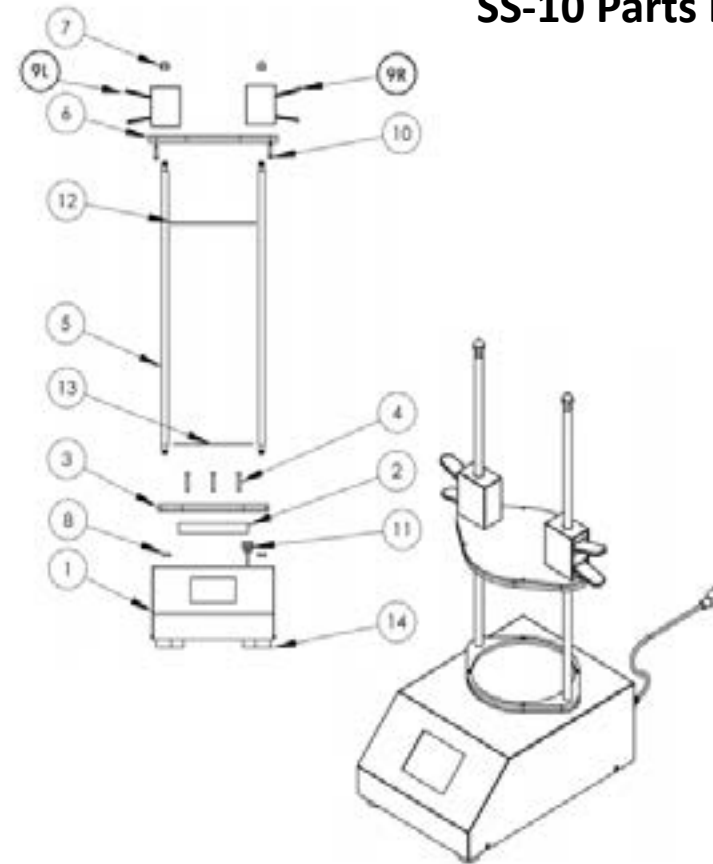
Gilson sieve clamps are designed for efficiency, ease of use, and rugged dependability. They allow fast, easy insertion and removal of sieve stacks, while keeping sieves tightly secured in place during testing.

Note: DO NOT lubricate the guide rods or internal contact surfaces of the clamps. If slippage occurs during operation, clean and degrease, then lightly sand the guide rods.

Each clamp has two levers; the top one is light gray and the bottom is red. To reposition the stack cover on the guide rods, maintain slight upward pressure on both the red levers at once while sliding the clamps up or down. Moving the stack cover, keep the clamps at an even height to prevent binding. When the cover is at the desired position, release pressure on the levers and the cover will stay in place.

As soon as the stack cover is seated over the top of the sieve stack, press downward on the gray levers several times until the pressure is applied to clamp the stack tightly. To release the stack, lift up both the red levers simultaneously. Slide the cover up slightly to clear the top of the sieve stack. When the cover is out of the way, release the pressure on the red levers.

SS-10 Parts Diagram



SS-10 Parts List

Item No.	Parts No.	No. Req'd	Description
1	WGV8-BASE_ASSY	1	Base Assembly
2	WGV8-SPACER	1	Clearance Spacer
3	WGV8-BOTTOM_COVER_ASSY	1	Bottom Cover Assembly
4	WGSW-252175FAMSS	3	¼-20 x 1.75 Flat Head Allen (Stainless)
5	WGV8-CLAMP_ROD	2	Clamp Rod
6	WGV8-TOP_COVER_ASSY	1	Top Cover Assembly
7	WGNT-513ACNOSS	2	½-13 Acorn Nut (Stainless)
8	WGNT-513HJNOSS	2	½-13 Hex Jam Nut (Stainless)
9R	WGSC-CLAMP_RIGHT	1	Sieve Clamp, Right-Hand Side
9L	WGSC-CLAMP_LEFT	1	Sieve Clamp, Left-Hand Side
10	WGSW-SB-03210025CSNSS	2	Shoulder Bolt 1-32 x 1 in
11	WGAS-PP-SK0129	1	Power Cord
12	WGV8-TOP_PLATE_GASKET	1	Top Base Plate Gasket
13	WGV8-PLATE_GASKET	1	Base Plate Gasket
14	WGUS-1-1/2"FOOT	4	1-1/2 Rubber Foot

Clamping down the sieve stack



Releasing the stack of clamped sieves



NOTE: The Touch Screen display is not moisture resistant. Avoid the use of liquids in its vicinity and use caution when cleaning the display. Moisture damage to the Touch Screen is not covered by warranty.



Touch Screen Operation:

Inputting data on the Touch Screen is simply pressing the designated area with your finger.

- A gentle pressure usually works better than a hard push with the finger. Using other objects on the screen is not recommended as it could damage the screen.

The Touch Screen is used both to input and display information of the SS-10 Shaker. The five upper displays are:

1. Test Time
2. Power Level
3. Interval Time
4. Pause Time
5. Test ID

The six lower sections function as control buttons to start or stop a test cycle, enable or disable vibration intervals, lock the screen and to select a test ID. The + and - buttons are set to input values for the fields.

Test Time

Test Time is the amount of time the sample will be actively vibrated. The count-down timer is adjustable from 00:00 to 99:59 minutes: seconds. When the timer reaches zero, the unit will stop vibrating and beep.

Editing the Test Time Display

To adjust, press the Test Time display once. The outline and numbers inside turn yellow and the first digit will flash. The flashing digit can be adjusted using the +/- buttons. Press the Test Time display again once the desired value has been adjusted. The next digit will begin to flash and is now adjustable with the +/- buttons. Continue this process until all Test Time digits are set. Press the Test Time display box once while the last digits is flashing to accept the changes and return to the screen to idle.



NOTE: Pressing the Touch Screen anywhere other than the Test Time box, or the +/- buttons at any time during the editing will quickly accept any changes made and return the screen to idle.

Interval & Pause Time

The Interval feature allows timed pauses to be introduced into cycles of active vibration. Separation of some materials is improved by the interruptions in the vibrations cycle that promote particle reorientation.

- **Interval Time:** The period of active vibration between pause.
- **Pause Time:** Time that the unit is not vibrating.
- **Test Time:** Uses both the Interval Time and the Pause Time.
- **Enable/Disable Interval:** The Interval feature is toggled on and off using this button.
- **Enable Interval:** When Interval Time and Pause Time are solid grey.
- **Disable Interval:** When the Interval Time and Pause Time boxes display settable digits.



With the Interval feature enabled, times must be entered in the Interval Time and Pause Time. Times can be any value up to the period selected for Total Time. Pause times are typically only a few seconds.

Editing the Interval Time & Pause Time Displays

Enable the Interval button, press the display box of the Interval Time or Pause Time box once. The outline and numbers inside turn yellow and the first digit will flash. The flashing digit is adjustable by pressing the +/- buttons. Press the display button again once the desired value has been set. Continue this until you have all the digits set. Press the display box once while the last digit is flashing accepts the changes and returns to the screen to idle.

NOTE: Pressing the Touch Screen anywhere other than the edited display box or the +/- buttons at any time during editing will quickly accept any changes made and return to the screen to idle.



Power Level:

Power Level is the amount of vibration produced by the unit. Vibration intensity on a relative scale can be selected between d1 (low) and 10 (high). Actual vibration amplitude and acceleration forces on the specimen particles will vary and are influenced by the bulk density and total mass of the sample, as well as the height of the sieve stack.

Editing Power Level Settings:

Press the Power Level box once. Units of measure and title of the box will turn yellow and begin to flash. The +/- buttons will adjust the value. The selectable values range from 1 to 10 on a relative scale. When the value is displayed, press the display again to accept.



Test ID:

The Test ID display and the Save/Delete Test ID toggle button are used to save and retrieve display settings. The Test ID display shows the current selected location from 0-99. If nothing has been saved in that location, zeros will show and the blue Save Test ID button is shown. If values are already stored at this location, they will be displayed with the red Delete Test ID button. Pressing Delete will remove stored information. The display does not change until new data is entered.

To create a new ID, either start at a location that has no data stored or delete stored values to clear the memory space. Press the Test ID display box, wait for the first digit to turn yellow and flash. Set the value using the +/- buttons and press the display again. Repeat the process to set the second digit and press to save the test ID location. Proceed to the other locations and set the values as described above. Press the blue Save Test ID button to save all information at that location once complete.

Lock/Unlock Screen Button:

The Lock/Unlock Screen button protects against unintentional changes. To activate, press the blue Lock Screen button. The button will change to display Unlock Screen. When the screen is locked only the Start/Stop and Unlock buttons function.

Start/Stop & Pause/Resume Buttons

The Start/Stop button controls the test cycle. Pressing the green Start button activates vibration and the count-down timer to the selected values. Pressing the red Stop button stops the machine immediately and resets the timer. Once started, the Save/Delete Test ID button is converted into a Pause/Resume button. Pressing Pause temporarily halts the test cycle and timer. Resume button will continue the test at the time remaining.

The SS-10 accepts up to eight full-height or sixteen half-height round test sieves of 8in or 200mm.

NOTE: 8in and 200mm sieves CANNOT be used in the same stack.



The SS-10 can test a wide variety of materials, combinations of power levels, test times and interval times must be determined experimentally.

Low initial power and time settings are recommended when testing an unfamiliar material. Settings may be increased when gradually until complete separation is achieved.

Inserting the optional GAA-19 Clear Acrylic 8in Sieve Space in a sieve stack allows visual observation of specimen action to determine optimum settings for a given material. When additional one minute increments of operation at higher power levels produce less than 1% of total weight difference in material passing a given sieve complete separation can be assumed.

In addition to material type, power input and time, differences in sieve stack height and specimen weights may also cause performance variations.

Gilson Test Sieves:

ASTM and ISO Test Sieves are categorized in three different classes:

1. Compliance Test Sieves are supplied with a basic certificate of manufacturing conformance.
2. Inspection Test Sieves have a specified number of openings measured and reported for each sieve.
3. Calibration Test Sieves have two to three times as many openings measured on each sieve, and are supplied with more detailed documentation.

Mesh Opening:

Opening sizes are listed using standard millimeter (mm) or micrometer (um) descriptions, as well as traditional inch and number designations where appropriate.

- Gilson offers all mesh sizes, but not all sizes are available in every frame diameter.
- ISO Sieve Cloth can be mounted in 8in (203mm) frames when special-ordered. *These items are nonreturnable when supplied as ordered.*

Frame Diameter:

Frames should accommodate the entire sample volume with enough surface area to avoid overloading individual sieves. The diameter selected must also fit the sieve shaker being used.

Frame Height:

Sieve frames are designated as Full-Height or Half-Height. Intermediate-Height sieves are also available for 3in and 12in diameter.

- Half or Intermediate-Height frames allow a greater number of sieves to be used when stack height is limited.
- Full-Height frames allow free movement of larger particles during agitation for more efficient separation.