



Digital Sieve Shaker

General

This test method determines the particle size distribution of fine and coarse aggregates by sieving. Refer to ASTM C136. The sieve shaker consists basically of a cradle for holding the sieves, a power unit and a base. The cradle consists of a platform fastened to the lower ends of two vertical support rods. The upper ends of which are shock mounted to a horizontal support that are free to pivot about its mounting. A sieve holder, a retaining ring and nuts on the vertical support rods hold the top bar firmly against the nest of sieves.

Model H-4325: Accommodates sieve frames from 3" to 8" diameter, 10 or less full height and 18 or less half height plus pan and cover. Built-in digital timer. Motorized.

Model H-4330: Accommodates sieve frames from 8" to 12" diameter, seven 3" deep full height, ten 2" deep intermediate height or thirteen 1-5/8" deep half height sieves plus pan and cover. Built-in digital timer. Motorized.

Sieve Set: Order separately, see sieve chart on website or catalog.

Installation & Method

Humboldt sieve shakers are shipped complete and ready for operation. Remove all packing materials. Place on sturdy and level surface. Plug power cord into an appropriately grounded outlet.

Collect the field sample according to ASTM D75 and reduce to a test sample according to ASTM C702. Dry to constant weight.

Operation

Digital Control (Timer) Panel:

The digital Timer Control Panel is located on the upper, right-hand side of the machine base, right above the on/off switch.

To operate, turn the Sieve Shaker on.

Select the desired time using the Up and Down buttons on the control panel.

Press the Start button to start the timer. This energizes the relay (N.O. contacts close) and the displayed time begins counting down.

When the time remaining reaches zero, the relay will de-energize (N.O. contacts open).

Pressing Start while the timer is running will end the cycle and reset the timer.

Changing the Timer Operating Mode

With power applied to the timer, press and hold the Up and Down buttons simultaneously until the current operating mode is displayed. (OP1=0 to 60min mode; OP=0 to 99sec mode.)

Press an Up or Down button to change the displayed operating mode, then press Start within 3 seconds to save the new operating mode.

Note: If Start is not pressed within 3 seconds, the timer will revert back to the original operating mode.

Adjusting Instruction

Select the sieves with mesh sizes that will supply the information needed and nest them beginning with a pan on the bottom. Then the finest sieve followed by increasingly coarser sieves with the coarsest sieve on top. Place a sample into the top sieve and place a cover on it. Place the stack of sieves on the shaker and secure with the hold-down bar, clamping it in place with the knobs on each side.

Depending on the weight of the sieve stack, an adjustment upward of the lower cradle will be needed. Turn the large pulley and note when the eccentric drive has moved the bottom cradle to the extreme right or left of its travel. At this point the shoulder bolt and plastic sleeve should be in the middle of the vertical slot (in lower part of the cradle). If it is not, loosen the top clamp knobs and the hex nuts which position the bottom cradle on the threaded rods, then adjust them upward lifting the stack until the shoulder bolt with plastic sleeve is centered. Retighten the fasteners (hex nuts and knobs).

When operating correctly, the movement upward and downward of the rod springs should be approximately equal. Test for this by hand turning the pulley one revolution and note the spring deflections at the top and bottom of the travel. If they are not equal repeat the adjustment until they are approximately equal. When they are approximately equal, normal operation can begin.

Maintenance

- Oil the main pulley driven shaft weekly.
- Maintain the nuts on the springs tight.
- Check for properly adjusted sieve stack.
- Periodically check all fasteners for tightness.

CAUTION: *Keep hands, clothing and other objects away from moving parts when the machine is in operation.*

Warranty

Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

Humboldt Mfg. Co.
875 Tollgate Road
Elgin, Illinois 60123 U.S.A.

U.S.A. Toll Free: 1.800.544.7220
Voice: 1.708.456.6300
Fax: 1.708.456.0137
Email: hmc@humboldtmfg.com

Testing Equipment for



Construction Materials

HUMBOLDT

www.humboldtmfg.com