

DuraTap Frequently Asked Questions

For specific sieving procedures, please refer to <u>Test Sieving: Principles and Procedures</u> located in the User's Manual. For added reference, a <u>DuraTap Parts Diagram</u> is located in the front portion of the User's Manual.

1. What is the oscillation displacement on the DuraTap and how many oscillations and taps per minute does the DuraTap produce?

The DuraTap's oscillation displacement is $1-1/8" \times 34"$. The oscillations and taps per minute will be dictated by the model DuraTap you have. Please see the chart below for approximate oscillations and taps per model.

Chart 1A

Model	Voltage	Hertz	*OPM	*TPM
DT158	110	50	267	150
DT168	110	60	278	154
DT258	220	50	268	154
DT268	220	60	278	152
DT1612	110	60	278	154
DT2612	220	60	278	152
DT2512	220	50	268	154

*These are approximate oscillations and taps per minute.

2. What sort of maintenance is required for the DuraTap?

The DuraTap for the most part just needs to be kept clean. There are two grease fittings on the DuraTap which require service after every five hours of operation. (Please refer to the <u>DuraTap Parts Diagram</u> in the front portion of the User's Manual.) One port is on top of the unit in the <u>BA106/BA119 Yoke (30/30a)</u>. This fitting feeds the <u>DA211 Eccentric (5)</u> housed in the <u>BA101 Tower & Base Assembly (45)</u>. This fitting feeds the <u>DA211 Eccentric (5)</u> housed by the <u>DA201 Lower Carriage Plate (21)</u>. The <u>BA105 Stationary Block (48)</u> should also be periodically greased. A Moly EP (extreme pressure) multi-purpose grease is recommended.

3. Does the DuraTap have to be calibrated?

The DuraTap is not a calibrated machine. The taps and oscillations can be verified to make sure the machine is still operating at manufacturer's specification. (Please refer to **Chart 1A**). The oscillations and taps per minute are basically a product of motor rpm, line-in voltage and the hertz of that voltage.

Test sieves, however, can be certified using Advantech's <u>Centerline[®] Premium</u> <u>Sieve Certification</u>. Utilizing our sophisticated image analyzer traceable to NIST, your sieve may be tested to any of the following:

- **ASTM E 11-04 Sieve Certification** can be provided for sieves being tested to the older ASTM E 11-04 Standard. Sieves measured to this standard will have 50 openings and 30 wires measured along the x and y axes.
- ASTM E 11-09 Inspection Certification can be provided for sieves being tested to the new 09 inspection standard. Sieves measured to this standard will have a percentage of openings and 10 wire dimension measured. This certificate provides a confidence level of 99% that the sieve is within the specifications.
- ASTM E 11-09 Calibration Certification can be provided for sieves being tested to the new 09 Calibration standard. Sieves measured to this standard will have at least twice as many apertures measured than inspection sieves, thereby providing an increased confidence level of 99.73%
- Please contact our Customer Service Team at 800.511.2097 or <u>sales@advantechmfg.com</u> for instructions on how to send sieves in for service.

4. Does Advantech calibrate/certify test sieves for the DuraTap?

Yes. Test sieves can be certified using Advantech's <u>Centerline[©] Premium Sieve</u> <u>Certification</u>. Please see the answer to question three for specifics on the varied levels of certification service Advantech offers. For a <u>suggested re-certification</u> <u>schedule</u>, please contact our Customer Service Team at 800.511.2097 or <u>sales@advantechmfg.com</u>.

5. How many sieves can I fit in my DuraTap?

Please refer to **Chart 5A** for details on the DuraTap's sieve capacity. Fewer sieves may be used by loosening the nuts and adjusting the height of the <u>BA132/BA122</u> <u>Sieve Support Clamp Assembly (36/36a)</u> to the level necessary to securely hold the sieve stack. See **Figure 6A** for an example of a properly constructed and inserted sieve stack.

Chart 5A

DuraTap Sieve Capacity

	Half Height	Intermediate Height	Full Height	Pan	Cover
8" or 203.1 mm	13	N/A	6	1	1
12" or 304.8 mm	7	6	3	1	1

6. My DuraTap is making a lot of noise and the sieve stack seems unstable in the machine. What is wrong?

The sieve stack may have been improperly constructed and inserted.



Figure 6A

- Start the sieve stack with the pan at the very bottom.
- Load the sieves on top of the pan. An extended rim pan may be inserted within the stack to run multiple samples. See **Figure 12A** for an example of the extended rim pan. Bear in mind the overall height of the sieve stack may not exceed the capacities as shown in **Chart 5A**.
- Introduce the sample and place the <u>BA106/BA119 DuraTap</u> <u>Sieve Cover (30/30a)</u> on top of the sieve stack as shown in Figure 6A. Figure 6B illustrates an <u>improperly</u> installed DuraTap Sieve Cover.
- Place the sieve stack onto the <u>BA132/BA122 Sieve Support</u> <u>Clamp Assembly (36/36a)</u>



Figure 6C



Figure 6B

Adjust the <u>BA132/BA122 Sieve Support Clamp Assembly (36/36a)</u> up far enough that the sieves will be securely held in place as shown in **Figure 6C**. Be certain you have the <u>BA106/BA119 DuraTap Sieve</u> <u>Cover (30/30a)</u> situated so the dimple in the center can receive the cork or rubber plug as shown is **Figure 6A**. If the cover is upside-down, the sieves will not be properly held in place and the <u>BA103</u> <u>Hammer Arm (1)</u> will fall on metal rather than the plug; causing the "sloshing" of the sieves in the assembly and the very noisy tapping.

7. My DuraTap is making a slapping noise and the oscillation displacement seem to be off. What is happening?

The <u>BA105 Stationary Block (48)</u> is manufactured out of a bronze alloy so that if any wear from heavy or extended use does occur, this block will wear out before the more expensive <u>DA201 Lower Carriage Plate (21)</u> is damaged. If this part becomes worn, the oscillations may change and a slapping noise will be heard.

- Unplug the DuraTap from the power source.
- Turn the unit over and wear on the <u>BA105 Stationary Block (48)</u> may be found.
- Replace the <u>BA105 Stationary Block (48)</u> before damage to the <u>DA201 Lower Carriage Plate (21)</u> occurs.
- Routine greasing of the <u>BA105 Stationary Block (48)</u> will ensure long life. See question 2 for locations of grease fittings.

8. I want to convert my 8" DuraTap to work with 12" sieves. Can I do that?

<u>Conversion Kits</u> are available for users who want to convert their existing unit to accept either 8" or 12" sieves. No need to incur the expense of another shaker. Simply unscrew 4 bolts and loosen 2 hex nuts.

- PA8 converts your 12" unit to accept 8" sieves.
- PA12 converts your 8" unit to accept 12" sieves.

9. Can the direction of the motor be changed?

No. **WARNING:** Do **NOT** attempt to change the direction of the motor. Doing so will cause damage to the DuraTap and will void the warranty.

10. What is the grade of stainless steel used in the manufacture of Advantech's test sieves?

- ASTM #8 and coarser sieves use a 304 grade wire cloth
- ASTM #10 and finer use a 316 grade.
- Stainless steel frames are manufactured with 304 grade stainless steel.

11. What is the warranty on the DuraTap?

The DuraTap carries a one year limited warranty against defective material and workmanship.

12. What is an extended rim pan? Do I need this for my test?

An extended rim pan is manufactured with a skirt around the bottom so it can be received by a sieve below it. This will allow the user to run multiple samples in one stack. The extended rim pan can be inserted mid-stack to collect fines of sample one and the bottom pan will collect fines from sample two. See **Figure 12A** for an example.



Figure 12A

13. Does Advantech have a repair facility nearby?

Advantech is pleased to offer telephone repair support for DuraTaps. Contact a member of our Tech Support Team at 800.511.2097. Alternatively, machines may be sent in to our location in New Berlin, WI for extensive repair or refurbishing. Contact us for information on how to prepare your machine for receipt and service by our Repair Department.

14. My questions have still not been answered.

For further technical support, please contact our Tech Support Team at 800.511.2097 or at <u>sales@advantechmfg.com</u>. We'd be glad to assist.

Notes
