Phiston TECHNOLOGIES® INC.
Innovation, Ingenuity, Integrity

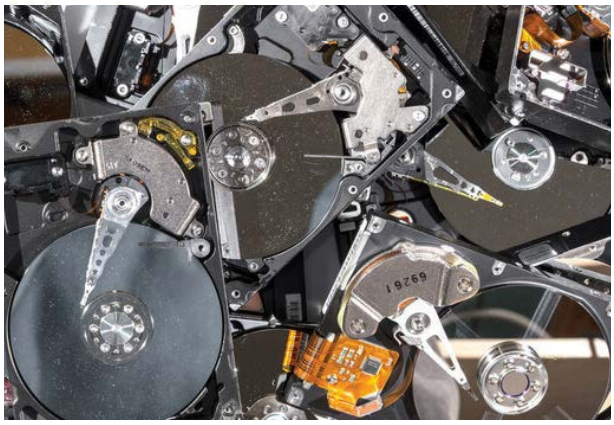
How to Destroy an Old Hard Drive

There are several ways to securely destroy a hard drive and erase sensitive data. Let’s go through each technique in detail.

ABSTRACT

Did you know that deleting a file or even formatting a storage device is not enough to keep your data safe? In fact, the best method to ensure the information is made irretrievable is to physically destroy a hard drive.

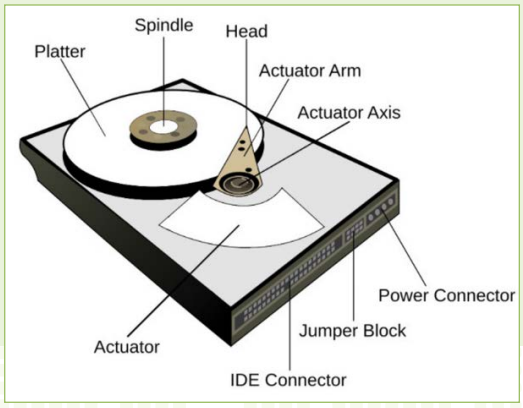
If you are looking for a secure data destruction method, this article will help you understand all the techniques you can use to deal with stored data on magnetic media, SSDs, and more.



BEST DATA DESTRUCTION TECHNIQUES

There are several main data destruction techniques you can use to ensure the secure and irreversible elimination of data and prevent unauthorized access to sensitive information (such as credit card numbers, patient info, etc.). The primary data destruction techniques include:

- Data overwriting: Data overwriting involves replacing all the data on storage media with random or meaningless information, usually using a data wiping program. Typically, you will need to perform multiple passes to erase a hard drive and ensure that the original information cannot be recovered.
- Degaussing: Degaussing is a technique used specifically for erasing data stored in a magnetic storage device, such as a hard drive, floppy disk, or magnetic tape. This data security method involves subjecting the media to a strong magnetic field, which effectively demagnetizes the data, making it unrecoverable.
- Physical destruction: Lastly, there is the option to physically destroy the storage media or devices that contain the data. This can be done through methods such as shredding, crushing, or disintegrating.



If you need to erase data and ensure it cannot be retrieved, you will need to choose the appropriate data destruction technique based on the type of media, the sensitivity of the data, and any relevant compliance requirements.

WHAT IS DEGAUSSING A HARD DRIVE?

A popular method for destroying hard drives, magnetic tapes, and other magnetic media is degaussing. The degaussing process neutralizes fields (affecting the magnetic field strength) on the media, disrupting the alignment and magnetic properties of the media and making the data unreadable.

You can degauss drives using a machine called a degausser, which randomizes and erases the magnetic patterns when the media passes through or near its field.

Although degaussing is an excellent technique for permanently erasing hard drives, it's worth noting that this method only works for magnetic storage media. So, you won't be able to use it for SSDs or flash drives.

DOES DEGAUSSING DESTROY A HARD DRIVE?

Yes. Degaussing removes the magnetic information from the hard drive, making it virtually impossible to recover any private data stored on it. This destruction process is irreversible, and once a hard drive has been degaussed, it is no longer usable. So, although not exactly physically destroyed, you won't be able to use it again.

OTHER PHYSICAL DESTRUCTION TECHNIQUES FOR DATA SECURITY

When it comes to hard drive destruction for non-magnetic media, there are alternative methods that focus on physical destruction to render the drives permanently unreadable and unusable. These techniques include the use of destroyers, disintegrators, and crushers.

Disintegrators use high-speed rotating blades or hammers to shred hard drives into small particles or fine powder. The blades or hammers tear the drives apart, breaking them into tiny fragments and making data recovery virtually impossible. Disintegrators are a common choice for many businesses because they are capable of processing a large number of drives quickly and efficiently.

Another good option is **destroyers**. These machines are designed to physically damage hard drives by puncturing them with powerful spikes or blades. The destroyer pierces through the drive's casing, platters, and other internal components, permanently damaging or breaking down the data storage areas completely. One of their main advantages is they can handle multiple drives at once, making them suitable for high-volume destruction operations.

Lastly, **crushers** apply tremendous force (through hydraulic pressure or mechanical mechanisms) to crush hard drives, rendering them physically damaged beyond repair.

It is worth noting that these physical destruction techniques typically result in the complete destruction of the hard drives.

CONCLUSION: DATA SANITIZATION AND HARD DRIVES

When employing any of these hard drive destruction techniques, it is important to consider security protocols, compliance requirements, and environmental considerations. Simply erasing the data on the hard drive is not enough to make it irretrievable. To completely wipe a drive, it's best to degauss it or physically break it down using a specialized machine (don't try to use a screwdriver to destroy data! You might get hurt, and nothing guarantees the info won't remain accessible).

If you're unsure how to destroy the data stored in old drives, we can help. Phiston Technologies specializes in innovative and competitive products like destroyers, disintegrators, and degaussers. We are the leader in physical data destruction machines. Contact us today to see how we can help your business!

THE PHISTON ADVANTAGE

At Phiston Technologies, we believe in innovation, proactive product development, and secure destruction of data.

Our goal is simple: destroying your media to preserve and promote data security. We build products to ensure complete media destruction.

As data storage continues to evolve, so will the need to advance current data destruction products. Phiston will always be ready to provide security solutions to keep your organization safe and in compliance.

Phiston as a company is a leader in end-of-cycle media destruction and has various products that can handle all. Our clients include some of the largest tech companies in the world, and our devices are deployed across all 50 states and in 49 different countries.