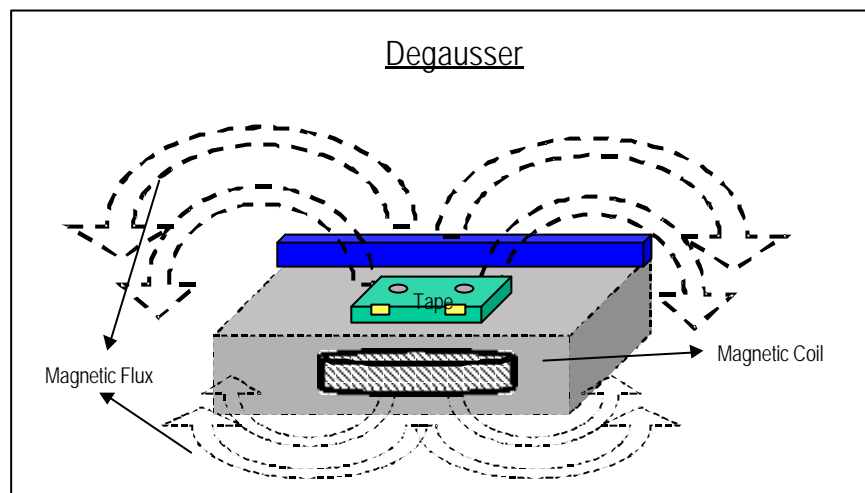


Degaussing made easy

What is degaussing?

Are you looking for an efficient way to erase data from your used magnetic media? Try degaussing. This is the best method and is accomplished by applying a strong magnetic field to the storage media such as computer tapes, floppies or even hard disks. The effect of this external magnetic field is to reduce the signal given out by the magnetic particles on the tape media, to zero. Hence, removing any previous data or information stored



Advantages and disadvantages

The key advantage of using a degausser is that it is media neutral; all tapes can be erased without investing in expensive tape drives. Once erased, no information can be recovered from the storage media. Unfortunately, for some magnetic mediums, once degaussed, they cannot be re-used. Cartridge technology that is servo-written cannot be re-used once degaussed since degaussing will also erase the factory-written servo pattern rendering the cartridge useless. Degaussing is an efficient way to prevent corporate data from leaving the company when tape cartridges are retired. It is also important to note that degaussed media should be tested to ensure the degaussing operation worked properly and appropriate gauss strength was applied to erase all remaining data.

Technical background

The magnetic particles in all cartridges produce magnetic flux, and the read/write head of the tape drive detects these fluxes to decode the stored information. The strength of the magnetic flux is determined by the **Coercivity** of the magnetic particles. You can find this measurement in most Imation brochures for different tape media. For example: LTO media has 1850 Oersteds, while AIT has 1350 Oersteds of coercivity.

To successfully degauss any media, the degausser used, must have a gauss strength that is usually 2-3 times higher than the coercivity of the media. For example: To degauss LTO media, you will need a degausser that can produce gauss strength of 3700-5550 gauss.

Most manufactures have used the term "gauss" and "oersteds" interchangeably. Take note that they are not exactly the same, but for a simple understanding, it will suffice that they are related.

Another term that one may come across is the **erasure depth**. This is defined as a measure of how far below the recorded level (magnetic strength) the media has been erased. By itself, it has no meaning; instead the erasure depth rating (in decibels - dB) is often accompanied by Oersteds. As such, a degausser may be rated at -70dB on 1500 Oersteds. Any range of -70dB to -90dB is a good indication that the information has been effectively wiped off. Many government agencies require -90dB.

Important Points

Please see the following table for a detailed listing of what type of media can be recycled (degaussed and re-used in your operation) and its corresponding field strength.

Magnetic Media	Typical Coercivity	Minimum Field	Notes
Floppy/Diskette	720 Oe	2160 gauss	
Hard disk	3000 Oe	9000 gauss	
SuperDisk™ Diskette	1500 Oe	4500 gauss	
Zip* (100MB/250MB)	1550-2250 Oe	4650-6750	Do not degauss
VHS	350 Oe	950 gauss	
DLTape™ III, IIIXT	1540 Oe	4620	
DLTape™ IV Super DLTape	1900 Oe	5700	
LTO/Ultrium* Gen 1	1850 Oe	5550	Do not degauss
LTO/Ultrium* Gen 2	2100 Oe	6300	Do not degauss
DDS 1, 2, 3, 4	1590-2350 Oe	4770-7050	
Mammoth/VXA 8mm Tape	1350 Oe	4050	
9 Track Reel	300 Oe	900	
3480/3490E	520 Oe	1560	
SLR 1, 2, 3, 4, 5	500-900 Oe	1500-2700	
SLR 24, 32, 40, 50, 60, 100	900-1600 Oe	2700-4800	Do not degauss
Travan 4, 5*	900-1650 Oe	2700-4950	Do not degauss
Travan 1, 2, 3 *	550-900 Oe	1650-2700	
3570 B/C/XL*	1625 Oe	4875	Do not degauss
3590/3590E *	1600 Oe	4800	Do not degauss
AIT 1/2/3	1380 Oe	4140	
9840/9940 *	1625 Oe	4875	Do not degauss

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