

There are really two factors that must be considered in the storage of instruments, temperature and humidity. Each campus can have a wide range of variables that will determine the safest level of temperature. These include but are not limited to, how often the building doors will be opened, how well the building holds climate, windows, running building fans to circulate air without climate control on, etc..

Temperature must remain constant in the building but can be from 68-76 for safe storage. The main concern is wide temperature swings which cause drastic changes in the humidity levels. A swing of more than 10deg is dangerous. An A/C does not just control the temperature, "A/C" stands for Air Conditioner, meaning it removes moisture from the air during the cooling process. This is the important part. Your instruments should be kept between 40 – 50 % humidity level. The A/C plays an important part in the control of humidity.

For example, when it is very cold out the humidity level drops below 40 and instruments can crack, when it is really hot the same thing can happen. This is why a clarinet or oboe must be properly warmed before playing, small bore, rapid change in temperature and introducing warm moist air to the instrument. As a related subject, the air must be turned on every time it rains during the summer months to make sure the rapid change in humidity does not creep into the storage area. We see the highest volume of cracked instrument during the wet months and the over 90deg months due to the extreme change in temperature during the night. Most often the onset is swollen joints that no longer fit properly. The wood has soaked up the moisture in a matter of hours and as it off gasses too quickly in a "normal" climate room the crack begins. When we get instrument in with swollen joints we put them in a humidity chamber to slowly correct the moisture level over several weeks to prevent a crack from forming. Just because you do not see the crack does not mean it has not formed below the surface. This is why a highly controlled environment is so important during storage.

With all that being said, I recommend that the facilities manager perform a humidity test in the recommended climate range to determine what will work best for each of your campuses while considering the building factors mentioned above. Tina Parr has first hand experience with instruments cracking at Griffin MS in FISD, she lost several bass clarinets in one summer.

If the district is concerned with the savings of a few hours of turning off the air, have them look at the potential cost of replacing your Oboes and Bass clarinets. It only takes a few hours to start a crack in the instrument.

I have seen where some campuses invested in outfitting a smaller room in the facilities with its own air unit to cut cost and save the instruments. This is my ultimate recommendation as it is a compromise in the long run for the entire district budget including the storage of the orchestral instruments. Instruments that are stored properly can out last the industry book depreciation value normally assigned to instruments of 10 years.

I am happy to speak with anyone you need me to in person to share more details.