

**"TO OIL, OR NOT TO OIL: THAT IS THE QUESTION..."**

Does tooling have to be coated with oil prior to storage?

The conservative answer is YES, according to the Tableting Specification Manual (TSM 7<sup>th</sup> Edition, published by APhA). The TSM suggests that a "light coating of thin, non-toxic lubricant" be applied to press tooling to protect the machined surfaces from the effects of rust. Even so, the TSM suggests that technicians periodically inspect tooling that will be stored for long periods of time to ensure that the lubricant film remains on the surfaces, and especially on the tip.

Thomas Engineering advises that the environment in which tooling is stored may affect the surface condition of the steel. We suggest storage conditions of 58-72 degrees F and 20-30% relative humidity (RH). At least one other vendor concurs, even suggesting that the RH may be as high as 40%. However, most vendors agree to the coating of tooling with oil prior to storage.

Several of our customers are located in arid regions of the USA and they have the good fortune of very low year-round RH. A few customers report that they store press tooling without any lubricant film coating whatsoever. They simply clean the tooling well, making a final rinse with isopropyl alcohol (IPA) to flash off any moisture and then taking care not to touch any of the clean surfaces with their bare hands. They "jury is still out" on just how dry the storage conditions need to be in order to store tooling without lubrication film coating.

In summary, the conservative approach is to coat tooling with an oil film prior to storage. Perhaps, you can experiment with discarded tooling to see how it reacts with your environment when it is not oiled. You might set it in your tooling room or some other dry area of your facility. Then check it monthly to observe if there are any adverse effects resulting from moisture or other contaminants.

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