



Softball Bat Testing ! / ASA

The ASA has taken great strides to protect the integrity of the sport of softball through bat and ball testing. The balance between allowing the game to be played and protecting the integrity of the sport and environment of athletes is something that we take seriously. Each year, the ASA's equipment testing and specifications committee examines the current rules and specifications governing various items of equipment. This committee makes recommendations to the ASA's council comprised of ASA commissioners, select youth and player representatives, umpire-in-chiefs, elite athletes and other affiliated members. The council is the ultimate decision maker of ASA rules and regulations regarding equipment. Like the technology of the day, this is a constantly changing topic and B&S Online dove into the topic answering some of your top questions and sharing how the world of equipment testing works.

Q&A with ASA Director of Umpires Kevin Ryan

Kevin Ryan has been a staple on the ASA National Office staff for the past six years and been a significant part of ASA for years before that. The current Supervisor of Umpires, Ryan answered some of the top questions he and his National Umpire Staff receive on a day-to-day basis.

Q: How does a bat end up on the Non Approved Bats with 2000 or 2004 certification marks list?

A: A bat that is currently approved has to go through a series of tests before it could be added to the Non Approved bats with 2000 and 2004 certification marks list. If we get information that a bat appears to be hot we purchase that model of bat and test it. If it turns out it does not pass the 98 mile an hour batted ball speed test we would then have to repeat this process a total of 4 times. If this model bats fails all four times it then would be added to the list as a Non Approved Bat with 2000 or 2004 Certification Marks. If any time during the testing process, one of the bats passes then ASA must leave this bat alone and not test it for a period of 6 months.

Q: If a bat fails the manual bat testers does this mean the bat has been altered?

A: No it just means the bat has failed a compression test that shows the fibers have begun to break down. It could mean the bat is just old and has been hit so many times it has started to be come out of spec for the 98 mile an hour batter ball speed test.

Q: Which overrides each other the 98 mile an hour batter ball speed test or the bat tester?

A: Both are valuable tests done in different environments that serve different purposes. The 98 mph test is performed in the lab under certified conditions. The barrel compression tester is used in the field by ASA personnel, the true value of the testing device is that the bats being used in that event have all been tested by the same tester which gives a feeling of an even playing field.

Q: Does failing the bat tester mean the bat would not pass the 98 mile an hour batted ball speed test?

A: Not necessarily, it could mean it is about to the point it would not pass. Failing the bat tester means the bat has failed a compression number that has been programmed in and relates back to the 98 mile an hour batted ball speed. This compression number is an agreed to number by the Committee and the bat manufacturers.



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Q: Will there be more bats added to the Non Approved bats with 2000 or 2004 certification marks list?

A: This is always a possibility. When we hear about a bat that may or may not be hot we try to police this by checking bats. If we have a bat that fails the policing procedure it could be added to the list. We have no way of really telling if that will happen or not.

Q: What does the Track Man device do?

A: This is a Doppler radar system that helps us track batted ball speed in actual playing situations. It is a computer program that tracks swing speed of the hitter, distance the ball is hit and calculates a batted ball speed. For More on Track Man Keep on Reading!

Q: What does ASA see the future of the 52 / 300 ball ?

A: Hard to tell, but all indications are this could be the ball of the future. It has the ability to be hit out of the park by those who should hit home runs and stay in the park for those who would not. Science and field testing has shown the ball also allows for more reaction time by the defense. It also shows to reduce batted ball speed in our 98 mile an hour batted ball speed test."

For a daily updated page of banned equipment, go to www.asasoftball.com under the Certified Equipment section.

The Newest Testing System - TrackMan

Golf Enthusiast are familiar with the TrackMan as some of the World's top golfers and golf courses use this system for analysis of their golf swing and ball flight. B&S Online got on the phone with Jason Martin, a graduate student at Washington State University who works under Dr. Lloyd Smith in the School of Mechanical and Materials Engineering Department. Smith is one of the Nation's top experts on using TrackMan for ball analysis and he shared some insight into one of the newest

What Is It?

Basically what it is, is a radar system that measures the velocity of a ball and from that velocity it can determine other trajectory properties of the ball. It can determine its position, acceleration, lift, drag. What's so great about this is we can look at the ball from both the pitch and hit angle. You can determine angles, speed, spin rates and all sorts of assorted data. In the big picture it is good at measuring batted ball speed.

Isn't this a Radar Gun?

It's more like 1000 radar guns, since a standard radar gun is one dimensional, and TrackMan is three dimensional. It is very similar to a radar gun but a lot more dynamic. It measures the speed of the ball through the entire path rather than just at maximum speed when leaving ones' hand, not leaving the bat. When at the end of the day we are more concerned with what its like when it leaves the bat. Anybody you talk to in softball is asking for batted ball speed and that's really what is important to us and is the major thing we use it for.

How much info can you take from this?

It's a continuous signal but takes hundreds of data points. I want to say its something every 3/10,000 of a second. It's a ton of data and there is a huge file for only about 4-5 seconds of ball movement.



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How does this further the cause of Equipment testing?

This is a great way to further improve our testing. There is a lot of data we get in a laboratory setting. This is something that we can take into the field, it's very mobile, and track all day long. It gives us a better sense of what is actually going on in the field since that is what we are measuring as opposed to work in the lab and helps us know our measurements are meaningful. We have some limits in the lab so its sometimes hard to get a full reading. In the field studies we can do all sorts of things like look at different types of balls ex. hi core/low comp vs. low core/high comp. We can track several different games with one ball under certain conditions and the effects it has.

Is this just the beginning for TrackMan and Softball ? We are actually working with the TrackMan engineers to be able to breakdown their raw data into other more useful data, mainly position and acceleration. The TrackMan already does this using very complex software, but we are doing this to verify that we understand TrackMan's data and so that we can show we can reproduce it. We will be doing an error analysis of the data to determine the accuracy of the unit, which will be shared with TrackMan. This also includes looking at and correcting TrackMan's lift and drag calculations.

With almost 50,000 friends the ASA Softball facebook page, we rely greatly on its ability to connect us with your players, coach, umpires and fans! Here are some of the questions we received regarding equipment testing!

Cheryl Pursell: "I'd like to know how I can get a bat compression testing machine."

B&S: "If you are unsure of your commissioner – please go to www.asasoftball.com and use the Local Association button on the right hand side. There currently is a waiting list for these testing devices."

James Brotherton: "Is the compression machine the only way to check for shaved bats?"

B&S: "A compression machine does not check for shaved bats. A compression machine tests the compression of the bats, these bats could fail compression for several different reasons, one of which could be shaved bats."

Rick Assmann: "Is it true ASA is going to 93mph bats to compensate for "rolling" and the 5mph it gives?"

B&S: "ASA spec is 98 MPH and to the best of my knowledge ASA is not going to 93."

David Diefendor: "If I have an Easton ST1-ZB fast pitch bat that is on the ASA approved list, but was manufactured before 2000 and does not have the ASA stamp. Is this bat legal to use in ASA play?"

B&S: "Yes it could be, by ASA Rule 3 Section 1A [3] the official bat must in the sole discretion of the umpire, have been manufactured prior to 2000 and if tested would comply with the ASA Bat Performance."

Desi Schippers: "Are composite bats still going to be legal in a few years. Is it worth buying one?"

B&S: "ASA has no current plans on banning all composite bats. Many folks are still buying them so it would be to your discretion as to if it was worth it."

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