

**Power Breaking Competition:  
A Competitor's Experience and Insights**

**IV Dan Thesis**

**By Audra Brown**

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## **Introduction**

Power breaking is an integral component of Taekwon-Do. Thus, the design and implementation of power breaking competitions is a very important subject. Both those responsible for the implementation and design of breaking competitions and those who would compete in power breaking may benefit from the analysis's in this text.

There are many variables that can effect a breaking competition and knowledge of how these change the strategy and influence the competition should be considered by all involved. The primary content of this text concerns the areas of breaking materials and breaking competition rules and design.

The topics covered in this text are only a small portion of the vast subject of power breaking and this is intended to be a reference for all Taekwon-Do practitioners who wish to know more about power breaking competition.

## Materials

Both competitors and tournament/event planners ought to be familiar with the different breaking material choices and what those choices mean in terms of competition.

In general, breaking material can be divided into three major categories, Real Wood<sup>1</sup>, concrete or Rebreakable. There are advantages and disadvantages to all types of material and much variation with each category. Many characteristics are not inherently advantageous or disadvantageous, but rather are defining characteristics that affect the breaking situation in ways that need to be known.

### Wood:

- Stackability - Real wood boards stack well and such stacking does not overly affect their breaking point. I.e. the addition of more boards consistently adds to the difficulty.
- Target Face - Though the optimal point of impact is near the vertical center, real wood can break at other points along the vertical axis.
- Consistency - The force required to break real wood can vary immensely based upon grain pattern, presence of knots, weather conditions, etc... in the breaking material. Penetration stays relatively consistent. However, among a batch of boards cut from similar stock in similar conditions, an average difficulty does exist and evens out the effect of natural deviation when multiple boards are broken at once.
- Familiarity - wood is a universal material and most (if not all) competitors have had experience with real wood boards and though strength may vary as wood does, target face, stackability, and penetration consistency stays fairly constant.
- Bounce - wood is flexible and springy when hit. If it is not penetrated far enough, it may not break. This is especially important when using techniques that have little strength directly behind them such as hand-techniques.

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<sup>1</sup> (Note that some manufactured wood breaking products also exist and do not clearly fit into either of these categories, but they tend to be used more for technique style breaking and are rarely used for power competition.)

## Rebreakables:

- Stackability - Rebreakables do not consistently increase in strength as boards are stacked. Depending on the design, this effect varies, but due to the mechanical nature of the board, stacking can disproportionately inhibit the physical operation of the board's design.
- Target Face - In contrast to real wood, Rebreakables only break at one vertical location.
- Consistency - Rebreakable boards are predictable with respect to required force and required penetration. Boards of the same design and manufacture provide approximately the same amount of difficulty regardless of weather or other conditions. However, they do decrease in strength as they are broken again and again. They have a limited lifetime.  
(Notice that as long as a group of similar boards are bought together and broken and rebroken at approximately equal rates, strength decreases along similar curves, maintaining consistency with in the group at least.)
- Familiarity - Due to the many variations of rebreakable boards, in manufacturer, mechanism, material, etc..., very few competitors are familiar with all the rebreakables. Most variations change penetration requirement and stackability enough to give a significant advantage to a competitor who is familiar with the breaking properties of the specific type of rebreakable board.
- Bounce - this factor varies immensely based on the design and mechanism of the rebreakable.

## Concrete:

- Stackability - concrete tends to stack well, better even than wood. Spacers are sometimes used to further increase stackability.
- Target Face - Though the optimal point of impact is in the center, concrete can break at any point. It is also notable that concrete can break at any angle and does not break along predictable lines like wood or rebreakables.
- Consistency - The force required to break concrete varies depending on the type and design of the concrete tile or block being used.
- Familiarity - concrete is a universal material and many competitors have had experience with concrete and though strength may vary, target face, stackability, and penetration stay fairly constant. Notice that there are a lot of potential material variations to be aware of, though they all follow the same principles.
- Bounce - there is little or no bounce in concrete.

## Analysis of Breaking Rules and Competition Design

There are countless variations when it comes to power breaking rules. Each tournament is different. Sometimes the rules are known in advance and sometimes they are made up and defined on the spot. As a competitor or as one who might need to determine the rules for a competition, it is important to be aware of the common rule variations and how they affect the competition. Some rules emphasize power (usually a good thing in a power breaking competition), others benefit training and familiarity with boards and skill, while others encourage lack of focus and punish training, precision, and/or power. When one is deciding the rules and design of a breaking competition, the desired emphasis of the competition should be carefully considered and the rules chosen accordingly. Always keep in mind the big difference between power breaking, speed breaking, and technique breaking.

### Point Systems:

#### Constant point per board

Most commonly, when each board is either real wood of the same type, cut, and approximate strength, or when using only one strength and style of rebreakables, a single point is awarded for each board broken.

This is simple and easy to keep track of. Since it does not differentiate between kicks, the advantage goes to the most powerful kick(s) such as side piercing kick. Also, because unbroken boards do not carry any penalty (i.e. no bonus point for clean break), there is no strategic advantage in setting up fewer boards. The best strategic move for the competitor may be to "go for broke" by setting up the maximum number of boards that they think they can break with their most powerful kick. They may or may not break them all, but each broken board counts the same regardless of how many don't break.

In essence, it creates a very simple competition which favors power and power kicks.

### Half/partial points for unclean breaks

This rule may be used along with any of the standard board point systems. With real wood, partial points (usually a half-point per) are given for boards that break upon shaking or touch. This can sometimes be applied when using rebreakables as well. Depending on the design, some rebreakables can be penetrated several inches without completely breaking. Instead, they stick in a bent position. These bent (and stuck) boards can be counted for half-points also. This rule is good because it reduces the chance of ties by more precisely measuring the effectiveness of each break.

### Bonus point for clean<sup>2</sup> break

Another frequently used rule is the bonus point. Awarded in addition to points for broken boards, it gives an incentive to break all of the boards set up and thus encourages the competitor to know *exactly* how many boards they can break with a particular kick. The optimum strategy here is to set up the exact number of boards that one can break cleanly. It favors power, and a competitor familiar with their ability.

### Graduated points per board (rebreakables)

Rebreakables come in varying strength ratings. When more than one strength of rebreakable is used within a competition, it is necessary to use a graduated point system based on the relative strengths of the boards beings used. This makes the strategy very interesting and complex by adding several new variables.

Since the strength of a rebreakable is determined by the mechanical operation of the mechanism, different rebreakables react to stacking differently. This means that the competitor cannot base his or her strategy only on the total point value of the boards set up. A competitor must also consider the stackability factor.

For example, consider three strengths of rebreakables being used; call them black, red, and blue with respective point values, 2, 1.5, 1. Consider a point goal of 4. There are four possible combinations (disregarding bonus points) to reach the goal. 2 blacks, 1 black/2 blues, 2 red/1 blue, or 4 blues. Despite the point values of each of these combinations being equal, the actual difficulty may vary. In this case, assume that

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<sup>2</sup> Clean break is usually defined as all boards set up being completely broken (i.e. full points for each board, no half-points etc...)

blue boards stack best (minimal mechanism interference when stacked) and blacks stack badly. Then 4 blues is an easier break than 2 blacks, despite the fact that the points are the same. On the other hand, 1 black (2 points, no stacking) may be easier than 2 blues (2 points, stacked).

#### Constant technique value

This is the most common kick value rule. Though the approved set of kicks may vary, points for boards broken remain the same regardless of what technique was used to break them. This has the effect of giving the advantage to the most powerful technique(s) available. I.e. the traditional power breaking techniques: side piercing kick, back piercing kick, downward knifehand, downward punch, etc... In essence, the advantage goes to competitors who have trained for power and with power kicks.

#### Graduated technique value

When this rule is implemented, the relative difficulty/power of each available kick is determined and a matching point scale is developed. For example, if side-piercing kick is considered the most powerful and thus the basis for the scale, and twisting kick is decided to be half as powerful as a side-kick, then each board broken with a twist kick will be counted as twice as valuable as a board broken with a side-piercing kick, and so on. The points per board will vary depending on the power of a kick relative to the basis.

This makes for a very interesting competition. If the point scale is accurate, it still encourages power. However, it has the unique effect of leveling the usual advantage towards traditional power techniques. This lets competitors who are well-trained and effective with non-power techniques to compete well against those who are better at power techniques. It also gives competitors a chance to break with new techniques with minimal penalty.

For example, consider an experienced power breaker who has spent years developing a power side kick and can break 10 boards with it. They are good at other kicks as well, but cannot expect to ever break as many boards with another kick. In a normal, constant-value breaking competition, the best strategy is to use the side kick and get 10 points. But, in a graduated-value event, where twist kick is worth twice as much, they would only have to break 5 boards with the twist kick to match the side-kick. This means that they can try a non-typical kick (like a

twist) and still compete well against the vastly more powerful side-kick.

In essence, this rule encourages power in all techniques, not just the traditional power techniques and thus encourages a competitor to be familiar with and train with many techniques and it allows the opportunity to hone new techniques in the fire of competition.

## Breaking Stations:

### Single station

One break is done by each competitor per round. Typically, the one break is a kick. This makes for a very tight competition with a high mental/strategic component. It also increases pressure by giving the competitor one and only one chance per round. Typically, each competitor is allowed to break with the technique of their choice<sup>3</sup>.

A single-station foot break competition is frequently used for youth (or less experienced competitors) breaking in order to minimize the likelihood of injuries.

The strategy and general effect of this rule varies depending on the point and bidding system.

### Two station

Two breaks are done by each competitor per round. This is a very common arrangement. Usually it consists of one kick and one hand technique per round, (though it can be done other ways). Both techniques are typically chosen by the competitor, similar to single-stage completion. By adding a second break, it requires the competitor to go beyond a single technique and thus encourages them to expand their repertoire. By requiring a hand break it encourages the development of hand techniques in addition to kicks for power. It also gives a competitor two chances to get points, reducing the overall pressure and reducing the punishment for a single mishap or mistake.

The strategy and general effect of this rule varies depending on the point and bidding system.

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<sup>3</sup> (Of the techniques available to them)

## Multiple station

This arrangement consists of three or more breaking stations per round. Usually, the techniques are preset and not subject to the competitors choice. The choice of techniques can have profound effect on the focus of the completion. If power techniques are chosen, it focuses the competition on power. If speed or other types of techniques are used, it changes the focus away from power and towards another type of breaking. This breaking setup favors the well-rounded breaking competitor who is familiar and effective with many techniques.

The strategy and general effect of this rule varies depending on the point and bidding system. (Note that it is frequently seen with set minimums and/or a qualifying break.)

### Qualifying break:

Usually seen with multiple station breaking competitions, a particular technique is designated as the qualifying break, and it must be completed before any other breaks may be attempted. This can be very effective when dealing with a large competition, as it quickly eliminates all but the competitors capable of making the qualifying break, reducing the usage of boards in the later rounds and the duration of the competition. It gives a huge advantage to competitors familiar and effective with the chosen qualifying break. Notice again, that the designation of the technique defines the nature of the competition.

Notice that a second qualifying round can be done if not enough competitors passed the first round.

### Bidding:

There are two methods of determining the amount of boards to be broken. At many tournaments, bidding is used. Each competitor bids the amount of boards they intend to break with the particular technique for each station. This can be done in many different ways. It adds a very high variability factor. It gives the advantage to mental strategy.

- Blind - where each competitor bids without knowing any of the other competitors' bids. This encourages competitors to attempt the maximum that they think they can break.
- One-Round - each competitor is asked to bid only once, but other competitors can hear or see the bid. This

is usually done in sequence (either random or seeded) with each competitor basing his or her bid upon those earlier in the sequence. Notice that the first in the sequence is essentially bidding blind.

The most strategically relevant positions in the sequence are first and last. The first bidder can intimidate successive competitors to over-bid. It is always highly advantageous to be aware of one's exact capabilities when bidding, especially when bidding first. The last bidder has the advantage of information. He or she knows how all the other competitors have bid and can make an informed bid.

- One-Round (plus one) - this is a slight variation which prevents any blind bidding by allowing the first bidder to bid again. Essentially, it gives all strategic advantage to the first bidder.
- Two-Round - this removes most any advantage inherent in position. Each competitor is allowed an initial bid and then after all initial bids are known, each competitor may revise his or her bid. In this case, sequencing is not even necessary.
- Two-round (limited revisal) - in this variation, the revisal is limited. Usually, competitors are only allowed to revise by adding boards and thus cannot bid lower than their initial bid. Many different limitations can be used and all have a different effect. Some examples are: reductions only, magnitude limitations (can only change bid by a limited amount), and so on. The possibilities are vast.

Notice that all of these can also be done by station or initially in total.

- In total - all the bids, for all stations are done before any breaks are attempted. Typically, no bid revisal is allowed once the breaking begins. This makes for a static competition once the breaking begins. At that point each competitor's setup is fixed and thus they know exactly what they will attempt regardless of opponents' performance.
- By station - this means the first station is bid and completed before the bids are set for the next station. This allows for a more dynamic competition where the competitors are constantly influencing and challenging each other throughout the competition.

With any one-round bidding scheme, the first station is bid and then attempted by all competitors, then the next station is bid and attempted and the pattern is repeated until all stations are finished for the round.

When revisal is allowed, it is possible to get all initial bids in total at the beginning and then allow the revisal by station.

#### No-bid:

This is a simple setup. For each station, the number of boards is set. Thus, each competitor attempts the exact same break(s). This removes the variability that is inherent with bidding and thus makes the determining factor to be power and skill rather than the ability or desire to play mental games.

#### Technique limitations:

The nature of a breaking competition can be greatly influenced by which techniques are allowed. The technique pool can be unlimited, it can be generally defined, or it can be specifically limited.

- Unlimited - any technique that the competitor chooses (within reason, considering venue and holding setup) is allowed. Notice that most competitors will choose a standard power technique rather than something exotic anyway.
- Generally defined - in this case, a definite technique pool is defined, but usually only by name. E.g. side-kick, turning-kick, front-kick, back-kick; where any reasonable variation of one of the kicks is allowed (rear-leg, lead-leg, stepping, modified, etc...)
- Specifically limited - this is where the technique pool leaves no room for variation. E.g. rear-leg-strong-side-side-kick, lead-leg-strong-side-front-kick, etc...

## Minimums:

For any breaking competition, minimum can be used. Each station and/or technique is assigned a minimum number of boards (or points) that must be attempted. When bidding is used, the competitor may add boards to the minimum, but may not attempt less than the designated minimum amount. This can force competitors to try more boards than they would otherwise attempt, and it slightly favors power skill. It eliminates the possibility of winning with a ridiculously low amount of boards, thus encouraging power.

## Measuring:

Measuring is another variable that can vary. This fact should be carefully considered before any breaking competition. Measures are slow walkthroughs of the kick that are obviously not anywhere approaching full power or speed or are not aimed at the true target. The main variations are as follows.

- Unlimited - where the competitor is allowed to measure as many times as they wish. This is rare and could potentially make the competition last a lot longer.
- Limited - where the number of attempted measures is limited to a specific number. Frequently only one measure is allowed.
- Touch - when measuring, the competitor is allowed to touch the board with the tool.
- No-Touch - when measuring, the competitor is not allowed to touch the board. Notice that this may be interpreted in such a way that the competitor cannot touch the board at any time during the measuring process, regardless of whether it is the tool or just any part of the body that contacts the breaking material.
- No-measure - in this case, no measure of any kind is allowed. It adds to the difficulty of the competition by forcing the competitor to rely upon visual measurement/placement and then only one shot at the break.

## Event implementation:

Due to the nature of breaking, as an event, it can be done in a couple of different ways. It can be treated just like sparring, patterns or any other event and be held all at once where all the competitors in a division are present and all competition is done together. This works for any rule set and makes for a cohesive and intense competition.

The other possibility is a come/go competition where the breaking is available for a set period of time and each competitor may come and break when he or she gets around to it. This reduces the breaking competition to something less than the other events and reduces the excitement of the competition. It also requires a number of officials to be occupied for an extended period of time. This also makes most bidding schemes not work very well. It is recommended that if this is the event design to be used, that either blind bidding or no bidding is used in order to maintain a relatively fair competition.

## Recommendations

### All-around pure power competition:

Based upon my experience and ideals, my recommendation for a breaking competition with the main emphasis being on power and skill is as follows.

No-bid with set minimums and multiple stations with set techniques (generally defined) evenly distributed between hand and foot power techniques, wood boards or one strength of rebreakables, (concrete can be used for hand techniques if desired) and an all-at-once event implementation. Constant points per board with a bonus point for a clean break. Measuring limited to one measure with or without touch.

### Fun and challenging for all skill levels:

My recommendation for a fun and challenging breaking competition that will provide a good competition for competitors of all skill and experience levels is as follows.

Two-round bidding by station, two or more stations, a generally defined pool of techniques, wood or one strength of rebreakables for foot techniques, concrete for hand techniques, and an all-at-once event implementation. Graduated points per board based on a reasonable power scale of the technique pool with a bonus point for a clean break, and half-points for partially broken boards. Measuring limited to one measure with or without touch.

### General Guideline:

It is my advice that all breaking competitions should be well thought out and designed to encourage specific skills without overly discouraging others and/or overly increasing the danger of injury. Thus, competitors' skill level and range of skill level, type of material(s) available, venue, and other variables and their respective impact on the competition should be carefully considered when deciding the rules of the day.