

FDC Guidelines

Horse jumping over cross-country jump

<https://www.youtube.com/watch?v=lu-NAZ2R-hQ>

Rotational Fall

<https://www.youtube.com/watch?v=NS4rChFpgdg>

Project Objective:

Create a new type of cost-effective frangible fence that breaks safely and prevents deadly falls. Proposals will be submitted to the International Federation for Equestrian Sports (FEI) committee for review. There are two criteria to satisfy to win the cash prize: the fence has to satisfy the safety requirements AND be the least expensive to produce. Right now, producing a frangible fence is estimated to cost around \$3,000. This is a barrier for smaller venues that don't have the funds to build jumps like these. Jumps that are cost-effective will increase the production of these fences and allow more venues to implement them.

Submission Requirements:

Instruction Manual

- A list, including diagrams, of the fence installations that the product is suitable to be fitted within. For each fence installation, the following information shall be included:
 - Whether the frangible fence element comprises a front rail (which includes single fence elements) or a back rail.
 - The angle of installation of the frangible element with reference to the travel direction of the horse.
 - The position laterally at which the frangible element is designed for the horse to jump.
- Clear instructions describing the installation procedure for the product, including for example, diagrams, visual aids, dimensions, mass, and size limits.
- Clear information on how to assess if a product has been correctly installed.
- Clear information regarding the concept of how the fence operates, how it should be used, and what type of impacts it is designed to offer protection against to help ensure that it is used in an appropriate manner. (e.g. how it is activated and the location and direction of loads required to activate it)
- Clear information to ensure that users are aware of the implications of incorrect installation.
 - Note: In order to minimize the risk of incorrect installation, designers should consider how the product may be incorrectly installed and where practicable eliminate the risk of incorrect installation by, for example, altering the design to prevent incorrect installation and/or improvements to the instruction manual.

Kettlebell Test

- Video proof of frangible device passing the kettlebell test

Fence Standards:

<https://inside.fei.org/system/files/FEI%20%20Frangible%20Device%20Standard%20v2-5%20TRL-%20FEI%206%20April2020.pdf>

Kettlebell Test

<https://inside.fei.org/system/files/Kettlebell%20Pendulum%20test%20V2.4-March%202020%20TRL-FEI%206April2020.pdf>

Process:

Submit your designs following the parameters outlined above by emailing horseck13@gmail.com
The cheapest fence that follows the safety protocols will win the \$5000 monetary prize.

Judging Based On:

Meeting fence standards outlined above.

Cost of the Fence

Most commonly used type of frangible system in the United States:

<https://mimclip.mimsafe.com/>

<https://inside.fei.org/fei/disc/eventing/risk-management/devices>

Other Resources:

<https://vimeo.com/531303903/19f3ca2d18>

<https://equine.ca.uky.edu/content/studying-rotational-falls-find-solutions-and-improve-eventing-safety>

<https://useventing.com/news-media/eventing-tv/frangible-technology-with-tremaine-cooper>

<https://useventing.com/news-media/eventing-tv/where-is-the-sport-headed-with-frangible-cross-country-fences>

<https://beva.onlinelibrary.wiley.com/doi/abs/10.2746/042516406776563314>

<https://www.mdpi.com/2076-2615/6/2/13>

<https://www.fei.org/stories/sport/eventing/frangible-future>

<https://inside.fei.org/system/files/Annex%20VIII%20-%20USA.pdf>