## MIMs Mechanism and Frangible Pins

The below checklist is to help officials responsible for checking the installation and operations of approved frangible fences. This document will be updated regularly. You will be able to access the document on the USEA (https://useventing.com/)

Approved frangible device manuals
https://inside.fei.org/fei/disc/eventing/risk-management/devices
https://useventing.com/resources/documents/BE_FRANGIBLE_PIN_REVPIN_SYS_INSTALL_MANUAL_2013.pdf

1. All rail jumps must be frangible from training level and up. (EV1409A&B)
2. A rail jumps training level and above need to be frangible.
3. Make sure no jump decorations or flagging will impede the rail from falling.
4. Any rail or decoration below the top rail should not be roped or fixed, as it will not fall apart if the frangible was to be broken. There should never be a leg trap as a result of the frangible device breaking. These rails or decorations should be either shimmed or zip tied to the post. This concept is the same for MIM devices and BE reversible pins.
5. Flags should not be a fixed to a rail or table that has been constructed to be frangible.
6. All Oxers rails must be frangible. It can have a MIM arm in the front and pin in the back if the designer sees fit. MIM arms operate on horizontal pressure while reverse pins operate on horizontal and downward pressure.
7. Check that the builder has spare clips, pins and MIM arms prior to the start of competition so there are spares in the event of breakage from a system activating.
8. During setup, the builder may fasten or block jumps during transport and forget to remove them. The official must make sure that there are no screws or bolts holding the jump together once ready for competition.
9. Be aware of frangible jumps that are not being used. It is dangerous for spectators to climb on the jumps.
10. MIM frangible jumps inherently have lateral movement, however, officials need to check that there is no movement in the frangible prior to competition.
11. Frangible jumps have catch blocks that the rail is to land on. Officials need to check that the catch block has been installed so that the rail can land and keep the integrity of the jump once broken.

| MIMS | British Eventing Frangible Pins |
|---|---|
| • As per the chart below, yellow clips are used on tables and rail jumps meant to be jumped on angles including corners.<br>• Red clips are used on rail jumps meant to be jumped perpendicular to the rail.<br>• Rail jumps including corners that are less than 8 feet wide should be fitted with a MIM gate or a corner kit.<br>• MIM clips should be secured tightly with no slack when installed.<br>• Check to see if the MIM Clip has been stressed. A flag will be protruding on the side of the clip when stressed, and therefore must be replaced. | • Frangible pins should be mounted at a 90° angle to the post.<br>• The reverse cables on a frangible pin should be very taut.<br>• Check to see if the pin is stressed. A stressed frangible pin will be bent or cracked. Any bent or cracked pin should be replaced.<br>• Check the length of the pin so the score at the end of the pin meets the center of the log. There are two lengths of pins used depending on the diameter of the log.<br>• Reverse cabling is the only acceptable form of frangible pins.<br>• There must be 16” of fall from the bottom of the rail to the dummy post beneath the rail. |




# Yellow vs. Red MIM Directional Chart

| Device | Max Rail Length -mm | Clip | Intended Direction of Travel | Notes |
|---|---|---|---|---|
| **MIM Post & Rail – Standard Kit: 80321** | 4000 | **Red** | ↑ | |
| **MIM Post & Rail – Narrow Kit: 80322** | 2400 | **Red** | ↑ | |
| **MIM Post & Rail – Narrow Kit: 80322 + Yellow Clips 80328** | 3600 | **Yellow** | ↖ ↗ | |
| **MIM Oxer Use 2 x Kit: 80321** | 4000 | **Red** | ↑ | |
| **MIM Wall Kit: 80324** | 4500 | **Red** | ↑ | |
| **MIM Wall Kit: 80324 + Yellow Clips 80328** | 4500 | **Yellow** | ↖ ↗ | |
| **MIM Corner Kit: 80326** | 3600 | **Yellow** | ↖ ↗ | |
| **BE Frangible Pin – Reverse Fitting – Short & Long Pins** | 4800 | N/A | ↖ ↑ ↗ | Back Rail of Oxers & Corners only **(Wires and Rope Fixings permitted)** |

Broken Clip


Compromised Clip

Long vs. Short Pin

Compromised Pin