

3 Hot Tips When Choosing a Hammer Cage.



There are more than 30 suppliers of IAAF and NCAA certified hammer cage worldwide and none of them make the ideal throwing cage. Some are less ideal than others. To help decide which cage to buy you need to determine which cage will be the least problematic over its life span.

The purpose of this report is to provide inside information to prospective buyers of hammer cages so they make a more informed decision about what to buy. When you know the common problems that cages have, you see cages in more detail and can see the good and bad features of the design.

The rules governing hammer throw cages state the position around the throwing circle that the net should be positioned and where the gate hinge position is in relation to the circle centre. The width of the gate and the open and closed positions are also specified together with the height of the net. The design of the structure that supports the net is up to the manufacturer. Governing bodies make reference that the net should stop an implement from rebounding off the support structure.

You should now see the net of a cage separately from the support structure. When looking at the metal work of the cage ask yourself what is likelihood is of the hammer hitting the poles and is the gate net sufficiently clear of metalwork or is the net tied directly to metalwork?

Three things to consider when purchasing a hammer cage:

- 1) The cost of the cage (purchase price plus delivery plus installation).
- 2) The one that takes the least amount of manpower to operate.
- 3) Is the least likely to become damage during its life.

The second and third considerations are more important than the first because once a cage is installed, it is the daily labour required to operational the cage and the amount of repairs needed to keep the cage in use that will determine how satisfied you are with the product.

Taking a closer look at the cost, labour requirement and risk of damage will help make a better decision when purchasing a hammer cage.

1: The initial cost of a cage:

The initial cost of a hammer cage will generally include the price of the cage, sleeves, circles and conversion circle. You can add to that the cost of delivery and installation.

A survey of hammer cage suppliers worldwide showed the price of IAAF and NCAA cages to be predominately in the US\$20,000 – US\$30,000 range with some twin circle cages topping out at US\$35,000. With some manufacturers there is an extra price for ground sleeves. Throwing and conversion circles are also additional costs.

The cost to install a cage will vary according to weather hire equipment is needed to erect the cage, if gate wheel arches are required, if pole brace footings are required and the number pole footings that need to be drilled and concreted. Some cages require 5 days or more to install the ground work and erect the cage. These cages will cost more than cages which can be installed in 3 days. Some cages require concreted gate wheel arches and pole support brace footings. This adds to the concrete and labour cost to install.



Thor cages do not require hire equipment to erect. The poles are assembled on the ground and raised by a winch which is supplied with the cage. There are only 3 or 4 pole holes to drill (depending on the model) and gate arches and pole bracing are not required. Thor cage footings can be installed in one day and the cage erected by two people in one day.



2: Labour to operate:

How often does the net need to be raised and lowered? How many people are required to operate the gates? How much time is spent on repairs? Answers to these questions will reveal how much attention a cage needs to remain operational.

Cages with low wind ratings require constant labour to raise and lower nets. One venue installed two low wind rated cages and replaced them a few years later with high wind rated

cages in order to cut their labour operating costs. Most of their cage labour was spent lowering the net after use and raising it again for events. Because the net spent most of its time on the ground the equipment was not available for practice. Their new high wind rated cages allowed the venue to provide **24/7** access to throwers for train.



Most cage designs incorporate gate wheels with some sort of brake mechanism and it worth checking with the supplier to see how many people are required to operate it. The problem with some of the mechanisms is, because the net sits on the ground it can get caught in the wheel so it requires more effort to manhandle the gates. The better cages should only require one person to move the gates.

Some cages require a lot of maintenance to keep the facility usable. Apart from lowering and raising nets, general upkeep and repairing damaged nets and poles can be an ongoing and frustrating exercise. General maintenance should be as simple as re-tensioning the vertical ropes through the net that keep the net in the correct playing position.



Thor cages are Cyclone 2 / Hurricane 1 wind rated and can remain erected and usable in most wind conditions. The gates have no frames and wheels which makes them easy to operate by one person. Vertical net retaining ropes are easily adjusted to keep the net in the correct playing position.

3: Risk of damage:

Damage and safety to cages are the biggest issues facing venue operators. 90% of cages will be damaged within the first two months of operation. Most cages have an inadequate gap (eg. one foot) between the support pole and the net which means the net is unable to trap the hammer before hitting the poles. Several cage models have the net tied directly to the gate frames and there is no chance of the net stopping the hammer from damaging the gate.



Wind damage on low rated cages can causes poles to bend (one venue in Australia had the gate frame of a cage blown off its hinges within three months of installation). Nets can get torn due to implements striking the poles and gate frames. Nets can also get caught in gate wheels.

Apart from cage design, damage is often caused through misuse of the cage. Nets are often tied back to poles or hooked over rope cleats. This allows the hammer to hit the pole and the net gets squashed against the pole or torn from being tied back. The photo shows how nets are tied back to the support poles and note the left gate is open for the right handed thrower.

Check that the net height (the height at the lowest point of the net) complies with IAAF or NCAA standard. One manufacturer supplies IAAF discus cages with poles at the correct height of 4.0m yet the sag in the net is 3.0m high. The same may apply to their hammer cages.

Choose a cage where there is adequate space around the net to prevent the hammer from ricocheting off poles.

Officials, throwers and coaches should be aware that cage nets should hang in the correct position and not be tied back to poles. Net will also last longer if hammer wires are taped to prevent the twisted ends catching in the net.

Thor cages have a 3 or 4 pole net support structure (depending on model) which provides better vision and is less likely to incur hammer strikes. A large gap between the pole and the net also limits the likelihood of hammer damage. Rope cleats on the poles contain a large disc which prevents the net from becoming hooked.



Best Tip:

Choose a cage that takes the least amount of labour to operate and maintain. The lower the maintenance and labour costs, the happier everyone will be.

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