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Your Sporting Goods Equipment Experts

So, You Need To Buy Bleachers?

Helpful Information On Types of Bleachers Available and Applicable Building Codes For Bleachers

Tubular Frame Bleachers vs. Angle Frame Bleachers

Disadvantages Of Most Angle Frame Bleachers

1. Structure is not as solid as tubular frame design.
2. Harder to assemble. More cross bracing mean installation will take longer and is generally more expensive.
3. Harder to maintain. Angle frame have tendency to buckle more easily if enough stress is put in frame work.
4. More difficult to clean underneath. Due to the amount of cross bracing needed to pass IBC code you basically have cross bracing on every part of understructure making it difficult to get into the area under the bleachers to clean.
5. Generally seat plank is lighter because people are trying to reduce cost. Possibility of a plank bending from people jumping it is higher. Long term, in general angle frame will have to be replaced or refurbished earlier. (Angle frame material is .075" and tends to twist when under a lot of stress.)
6. Depends on the manufacturer. The seats planks have to be bolted, (as opposed to slotted), to assemble which takes a lot more time.
7. Companies that manufacture angle frame bleachers are generally looking for short cuts and many of the connections are not as strong. We work with an independent engineer who can show us weakness in each design and predict where it could fail. An angle frame design bleacher has many more places where weaknesses can be exposed. We also have seen many manufactures of angle frame bleachers pass on the burden of meeting codes to purchaser.

Advantages of Tubular Design Bleachers - (Note: All JW Industries bleachers are tubular design.)

1. Framework, (2" x 2" x 3/16 tubular aluminum framing), is stronger than angle frame design.
2. Seat plank is stronger than most manufacturers, (2"x 10" x .085 wall thickness)
3. Easy to assemble due to frame strength and less cross bracing required.
4. Galvanized fasteners
5. Easy to clean underneath them due to cross bracing design.
6. More options available - ie. engraving, powder-coated hand rails, seat planks, risers, wheel kits.
7. Long term this is normally the least expensive model.

Disadvantage of Tubular Design Bleachers

1. Generally the material is more expensive. However, the cost depends on design and your needs.

Low Rise Bleachers vs. Standard Bleachers

Low rise bleachers were designed to make bleachers less expensive yet still meet code.

Low rise bleachers have a 6" rise instead of 8" rise and first seat is only 12" off ground. This essentially makes the entire bleacher a staircase.

Advantage of Low Rise Bleachers

1. They cost less since you do not have to add aisles.

Disadvantages of Low Rise Bleachers

1. Poor sight lines due to 6" rise
2. Cramped seating for adults because of the rise and run.
3. First row is often unused because it is low to ground
4. Considered by most to be uncomfortable to sit in.
5. Normally results in fewer people actually sitting in them.

We recommend the standard bleacher in almost all cases.

A Guide To Building Code As It Applies To Bleachers

How Important Is It For Your Bleachers To Meet Building Codes?

It is the buyers responsibility to meet codes. Code interpretation and application rest solely with local authority, so it is important to consult local code officials to determine requirements for guard rails, risers, aisles and handicap seating in your area. Most of the country now follows the IBC 2006 code, but a few areas do not.

What might happen if you do not meet code?

1. Nothing at all
2. Building inspector can forbid spectators to sit on bleachers that do not meet code.
3. Insurance carriers can drop clients insurance.
4. If someone has an accident on a bleacher that does not meet code the buyer can be held liable.

Specific Code Details

Guard Rails

- A. Basically all codes state that any bleacher seat higher than 30" above ground requires a guard rail, double footboards, and risers that will not allow a 4" sphere ball to pass through.
1. Manufactures decide to make the top of 3 row units measure under 30" so 3 row bleachers do not need to have a guard rail.

Aisles

- A. Essentially all codes except UBC, state that all bleachers must have an aisle unless the following exceptions are made:
1. Seats are without a backrest
 2. The rise from row to row is 6"
 3. The row spacing does not exceed 28"
 4. The number of row does not exceed 16 row
 5. The first seat board is not more than 12" above ground
 6. Seats boards are flat
 7. Seats boards are a minimum of 11" wide.
 8. Egress from seating is not restricted.
- B. Background On Bleacher Aisle Code:
1. Typical 3 row, 4 row, 5 row and 10 row bleachers have an 8" rise and 24" run.
 2. On a standard 5 row bleacher the first seat plank will generally be at 17" and the second seat is 8" higher.
 3. Most states have adopted some form of IBC Code, (either 2006 or 2009) for their bleachers.
 4. Manufactures have the option to add a four foot aisle with a center handrail or change the rise from a standard 8" rise to a 6" rise.

Handicap Seating

- A. IBC Code for handicap seats states:
1. 4 to 25 seats requires 1 handicap seat
 2. 26 to 50 seats requires 2 handicap seats
 3. 51 to 100 seats requires 4 handicap seats
 4. 101 to 300 seats require 5 handicap seats
 5. 301 to 500 seats requires 6 handicap seats
 6. 501 to 5000 seats requires 6 + 1 additional handicap slot for every 150 seats.
- B. It is permissible in most states to count 2 handicap seats on the outside of frame, (one on each side).
- C. It is permissible to add additional handicap seats by cutting out seats inside the frame. This results in a net loss of 6 seats for every handicap seat. (ie. To add 3 handicap seats to 10R31A-1GR would result in 164 total seats including 3 handicap seats.)
- D. Meeting codes is purchasers responsibility and in truth is most people do not know what the actual code is, (even building inspectors). Most bleacher manufactures do not even mention wheel chair slots on stock models, because most people don't concern themselves with this and it is open to interpretation.
- It is permissible in most states to combine the number of bleacher sections to determine how many handicap seats are needed. (Compliance is left up to the local inspector.)



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