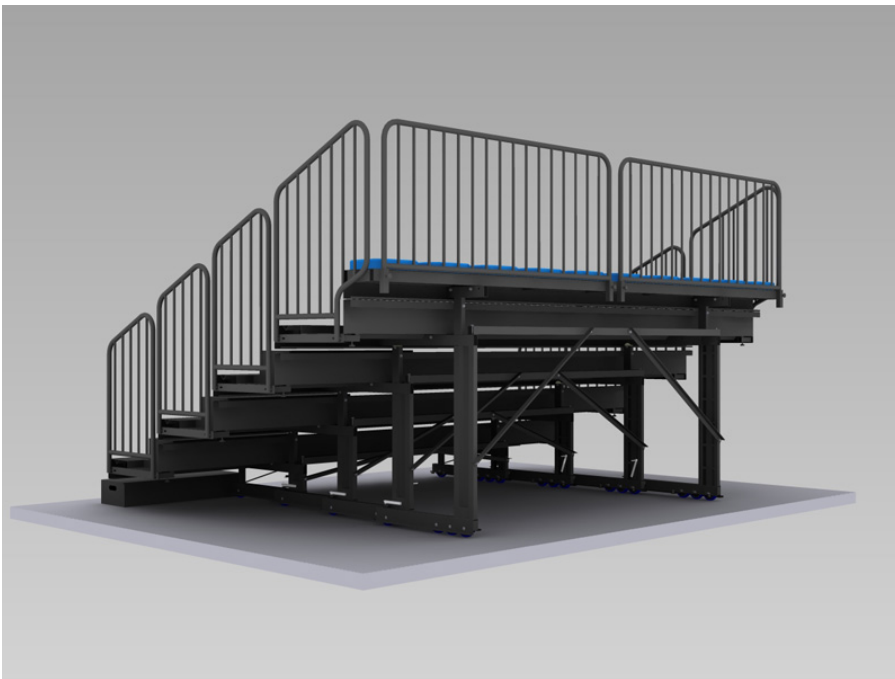
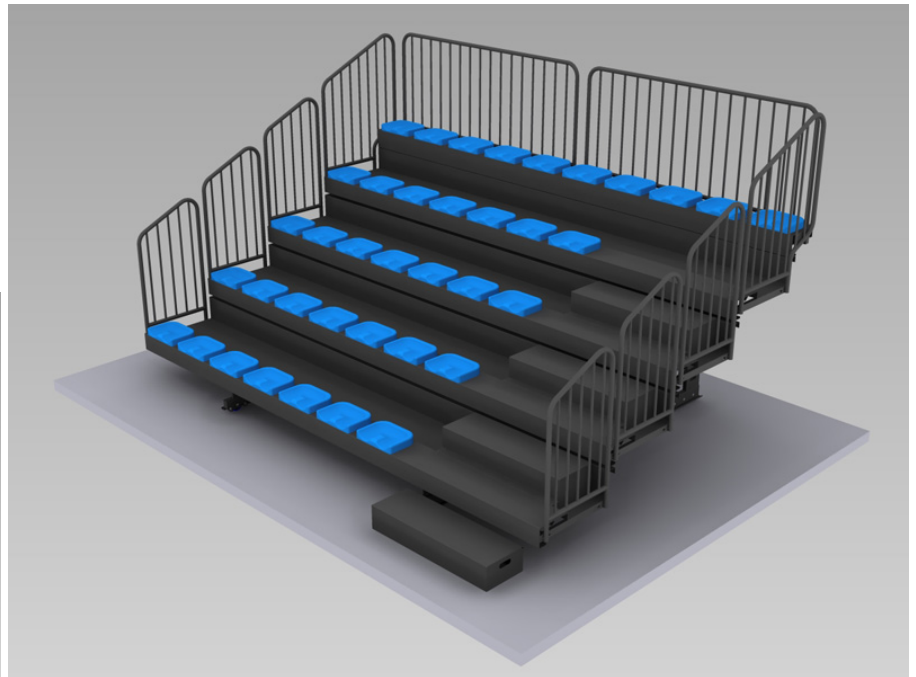
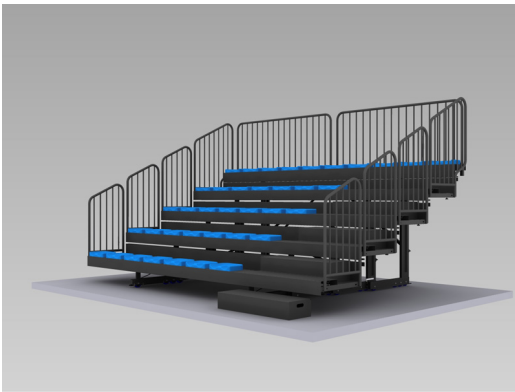


## TELESCOPIC BLEACHER



MONDO indoor telescopic bleachers are designed and manufactured in accordance with ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System) and OHSAS 18001 (Occupational Health Management System).

16/12/2019

Mondo keeps the right to modify the characteristics of the products in any moment

This product is custom made, designed specifically for each project. It is a product mainly used in indoor facilities to increase seating capacity by adding a series of telescopic bleacher modules. When the bleachers are not being used they can be folded to occupy very little space.

The MONDO indoor telescopic bleacher design is adapted to the dimensions available in the indoor facility, carrying out a layout on which all the determining parameters are defined (fastening systems, step distribution, stand access areas, side and front handrails, access and seating spaces, etc.).

MONDO indoor telescopic bleachers consist of several modules which dimensions and finishes meet the needs, requirements and features of the area where they are going to be used and the customer's needs, always ensuring the user's comfort and safety.

Each section of the telescopic bleacher, manufactured mainly in steel, consist of several modules, each one being comprised of telescopic independent metal structures or frames, which determine the different heights of the bleachers. This existing guide system allows all the rows to be folded and removed quite easily.

Each module consists of the following major elements:

- Support structures, comprised of metal steel frames, manufactured in cold rolled steel sheet, providing the geometry required to withstand the stress loads. It is also reinforced with resistant elements that prevent possible dents, sagging and bulging effects.
- Platforms (each per row) manufactured in cold rolled steel sheet.-
- Handrails: The bleachers have a series of dismountable handrails on the sides of each section and at the front, where necessary (if designed with front aisle), which are made in circular section (of 40 mm diameter) curved steel profile, reinforced with cross members that also limit the free spaces. The handrails are 1 m high for each passageway and they are designed without any sharp edges that might cause harm to the user due to knocks or in any other way.
- Guided system and running wheels: Several guided and wheel systems located between the bleacher elements and the floor prevent direct contact between metal surfaces, reduce friction and make it easier for the bleachers to slide. This means folding and unfolding operations are carried out with minimal effort.

## **MATERIALS USED**

- Steel elements

All elements of the telescopic bleachers are made of structural steel St-37b. This type of steel is mainly applied to building structures. It presents no difficulty for welding.

- Screwed connections

All screws and self-locking nuts (DIN 985) are 5.6 quality, each of the screwed connections being protected with washers. All the elements have been submitted to zinc treatment to protect against corrosion.

## **SAFETY SYSTEMS**

The telescopic bleachers have been equipped with safety devices to guarantee safety of both workers and spectators against possible injuries. There are some mechanical safety systems (such as side handrails) but also some electrical safety systems when the operations are motorized.

## DESIGN OPTIONS

MONDO telescopic bleachers are a customized product, adjusted not only to space available but also to customer's needs. Therefore, in order for MONDO technical office to study each project, drawings and plans of the indoor facility should be provided to MONDO.

In addition, the customer must choose from the following design options:

- Type of seat and color among the different MONDO compatible models: MONDOSEAT 1, MONDOSEAT 2, MONDOSEAT 4, MONDOSEAT 5, AUTOMATIC MODEL, VENELLI MODELS.
- Passageway options: rear and/or front passageway. Depending on the choice there will be front and/or rear handrails (apart from the sides ones).
- Access situation for every module (number and dimensions of stairs).
- Type of non-slip coating for access areas and passageways: It can be done with non-slip steel paint (choice in the standard color range) or any MONDO rubber or PVC floorings.
- Operation options: manual or motorized. If motorized, electrical installation must be carried out.
- Final dimensions of every single module (depending on available space):
  - Number of rows for every module.
  - Number of spectators in each row.
  - Total capacity desired.
- Lateral canvas to be used only when the bleachers is unfolded.
- Front cover and material (when first row is elevated).
- Media and press Area (with tables and connections).
- Special areas such as VIP Area or handicapped Area.
- Seat Numbering scheme
- Stairs emergency lights
- Legal requirements to be considered in the final design (this feature depends on the country where it is going to be used. Some regulations are more strict than others).



The MONDO Group has developed and installed more than 50 bleacher projects in the last 15 years all around the world. They have been used in several high level sport competitions such as the Olympic Games or the Basketball World Championships, Final Four Euroleague, etc.