

## Technical data sheet - TX Telescopic Platform System



### Introduction

A high quality telescopic chair platform system, tried and tested by over 1000 venues worldwide. TX is operationally durable enough for the largest arena installation but refined enough for education, arts and conference facility operators. Designed for low maintenance and a long life, TX delivers strong financial benefits to owners and operators.

### Structural Design Features

Each component, and the system as a whole, has been specified to be thicker and higher grade than the industry norm, and to meet or exceed industry standards, with high safety factors built in.

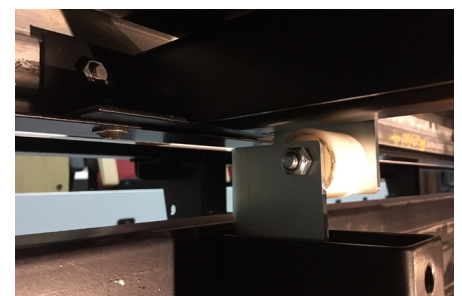
- Complies to BS EN 13200-5:2006, ICC 300, DIN, and other international standards.
- Designed to withstand both static and dynamic loads.
- Full structural calculations, compiled by an independent structural engineer are available on request.
- Tested for emissions of VOCs, formaldehyde and acetaldehyde; emissions fell within acceptable limits specified within BREEAM, LEED and WELL standards. Details on request.
- Ten year warranty on understructure.
- Audience Systems can also offer curved telescopic platform systems, which are designed individually for customers on request.



Robust spring and gravity operated row locking system to lock opened rows securely in place, even in seismic areas.



All-steel parallel guidance system ensures safe, reliable opening, greatly reducing wear and extending system life.



Designed to eliminate metal-to-metal contact to reduce wear, warping and noise.



Bolted construction is continuously adjustable throughout system life to keep system running smoothly and reduce risk of wear and / or jamming.

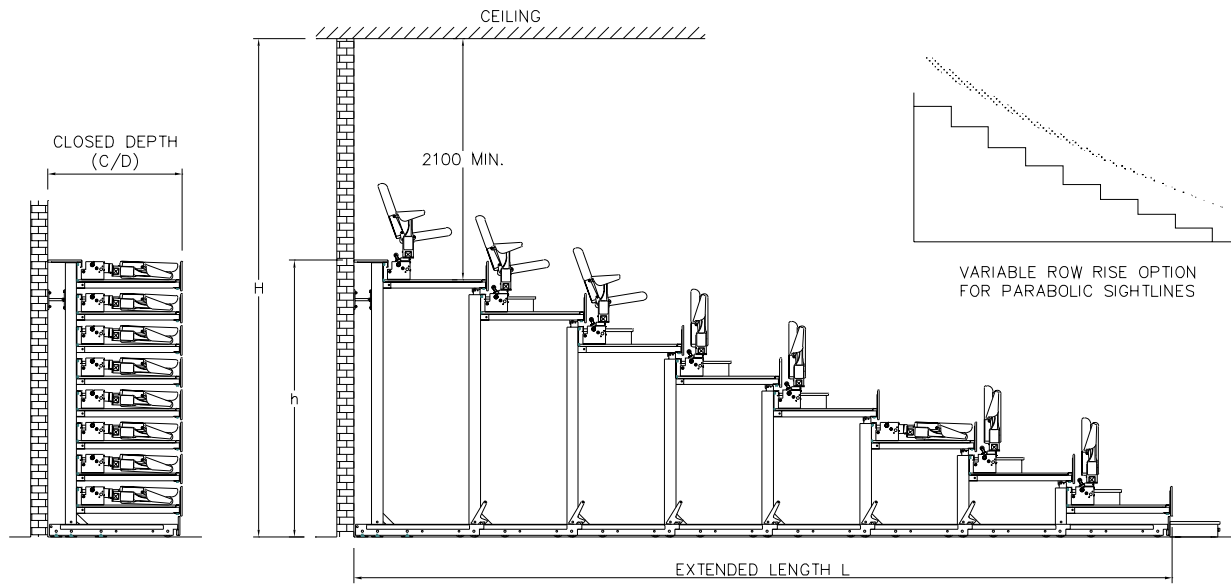


Diagonal bracing members manufactured from strong steel channel with secondary bracing for very large systems.



18mm plywood deckboards (for finishes, see page 4).

## Dimensions



$$\text{Minimum room height (H)} = (\text{number of rows} \times \text{row rise}) + 2100\text{mm}$$

$$\text{Unit height (h)} = (\text{number of rows} \times \text{row rise}) + 170\text{mm}$$

## Row depths / closed depths

800, 850, 900, 950, 1000mm.

Also available in 650mm row depth with Duet, Unity, Contour or Profile benches.

Other depths available in special circumstances.

Closed depth (C/D) = Row depth + 325mm.

## Row rises

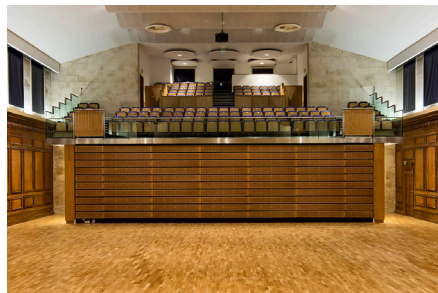
**Bench systems** 260, 280, 300mm

**Chair systems** 260, 280, 300, 320, 340, 360, 380mm

## Storage Options



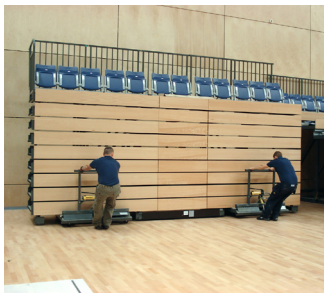
**Type F** - Floor and wall fixed. Stays in place once closed.



**Type R** - Recessed unit - slides back into a recess, or under a balcony once closed.



**Type V** - Travelling unit which allows movement as a complete bank, forwards and backwards, from its stored position.



**Type M** - Mobile. Once closed, units can be specified to be moved via (pictured left to right): a pair of hydraulic trucks, hydraulic trucks with an additional power truck to assist, fork lift truck, or air hover system.



## Platform Opening and Closing Options



**Manual operation** via removable pull handles.

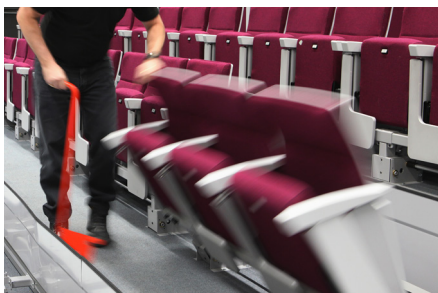


**Power operation** - Pendant control operating friction power drive. See separate datasheet for full specification.

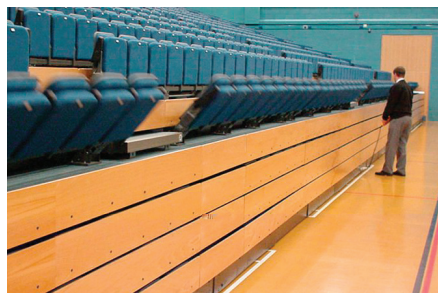


**Power truck operation.**

## Chair Fold-Down Options



**Manual** - chairs are folded down in groups of 2, 3 or 4 prior to retraction.



**Semi-Automatic** - chairs are automatically folded down as the platforms close, and picked up in groups of up to 14 after the platforms have been opened.

## Special Configurations



**TXD Double Row Depth System** - A system with two rows of chairs per platform, ideal for spaces with restricted height.



**Low Row Rise System** - An alternative option where height is restricted. Chairs have to be completely removed before retraction.



**Partial Opening System** - A mechanical locking system allowing the platforms to be safely opened to a specified number of rows, starting at the front. Please note that in order to use  $n$  rows of seating,  $n+1$  platforms must be opened.



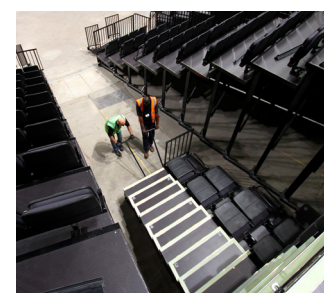
**Truncation** - Allows the platforms to be safely opened to a specified number of rows, starting at the back. Posts are provided to safely support the open platforms.



**Permanent Truncation** - front row permanently raised to improve sightlines, or to allow for additional seating in front.



**Vomitory opening.**



**Tapered units** - to help create curves and bowl shapes.



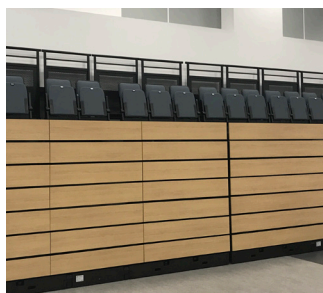
**Riser mounted front row** - creates an extra row of seating without additional platforms.



## Fascias



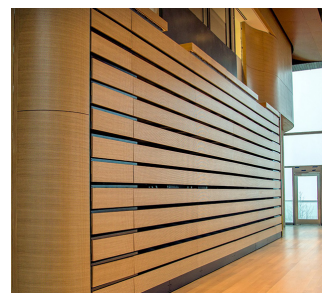
Closed unit with no fascias.



Standard fascias in 16mm MDF, double faced with melamine, oak finish. Removable infills at aisle positions.



Fascias with plain melamine finish. (Those shown are through bolted for additional strength in a ball sport venue.)

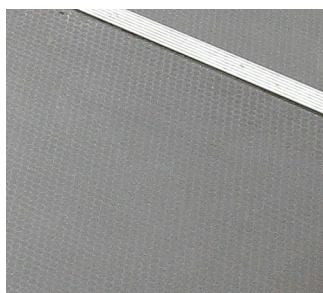


Custom finishes - please ask us about custom finishes and materials to suit your interior.

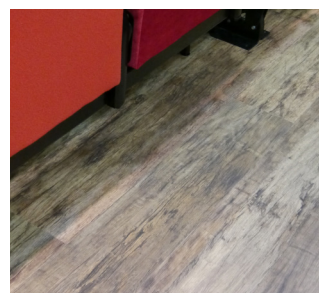
## Deck Finishes and Trims



**Carpet** - Contract grade, heavy duty, fire retardant carpet chosen from our standard range, or custom carpet if suitable.



**Phenolic Deck** - Brown, raised pattern phenolic coating, anti-slip.



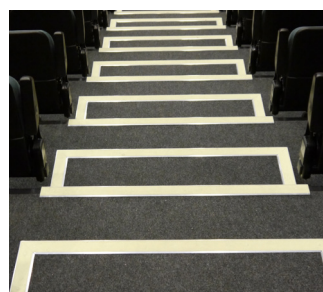
**Wood Effect Deck** - Hard wearing, premium grade wood effect flooring in vinyl in a wide choice of finishes.



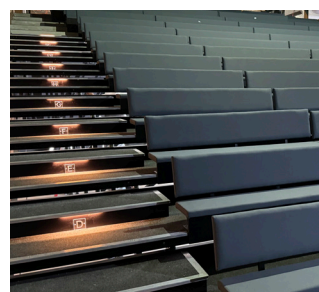
Row letters on step riser



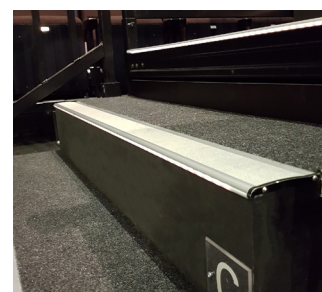
**Standard Deck and Step Nosing** - Aluminium profile. Shown with row letters on step tread.



**Custom Nosing** - With infill to suit your interior, for example this photoluminescent nosing.



**Aisle Lights** - Low voltage, low glare, LED lighting with optional one hour battery back-up and dimming function. See separate datasheet.



**MX LEDTRED Aisle Lights** - Premium stair nosing with integral LED lights, running the length of each step & half step. See separate datasheet.

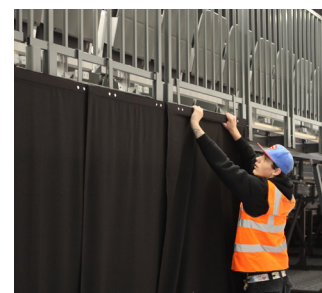
## Screening



To disguise and prevent access to understructure. Removable or self-storing\* panels are available for the side, rear and front of the seating unit (if row 1 is raised) in 16mm MDF with melamine facing, oak finish. Other finishes on request.

Removable or self-storing\* drapes in fire retardant dimout fabric are also available for the side and rear of the seating unit.

\*Self-storing drapes or panels are not suitable for all venues or configurations and extra clearances may be needed. Please discuss your requirements with one of our sales team.

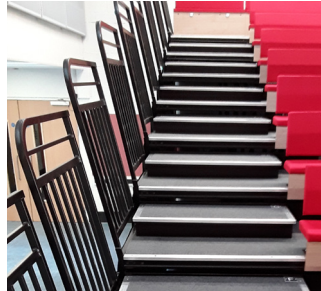




## Rail Operation



**Removable Side Rails** - Removed before platforms are retracted and usually stored on a trolley.\*



**Self-storing Side Rails** - Angled to nest together when unit is retracted.



**Folding Side Rails** - Available where the rail is adjacent to an aisle.



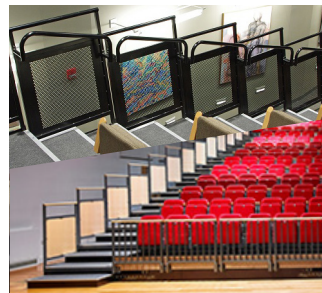
**Kick plates** - To guard the operational clearance where an aisle is adjacent to a wall.



**Front Rails.**



**Rear Rails (seen from behind)**



**Hand rails** - Top: US ICC compliant hand rails. Bottom - Wooden rail tops.



**Centre Aisle Rails.**

## Rail Design



**Type D** - Tubular steel infill.



**Type E** - Perforated steel infill.



**Type B** - MDF infill, faced with melamine (finish: oak) - other finishes on request.

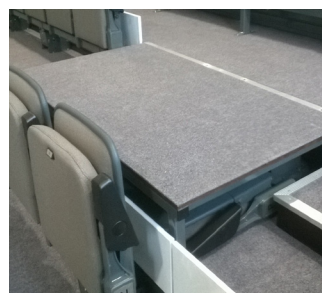


**Custom** - Infill panels in special materials to co-ordinate with your interior.

## Other Items



**Trolleys** - for rails, aisle infills and any other ancillary items.



**Removable plinths** - typically for a sound desk or wheelchair position.



**Deck infills** - hinged steel, or removable rubber to create join between two adjacent mobile units.

\*Where removable rails are included, the telescopic system will include anchor points to facilitate the use of a standard restraint belt. This will ensure that system operators comply with the Working at Height Regulations 2005 when installing or removing rails.



Compatible Chairs and Benches

See separate datasheets for details. Please ask us about chairs suitable for use on curved platforms.



Recital



E-Form



Eclipse



Espace 628 High Back /  
Espace 628CC



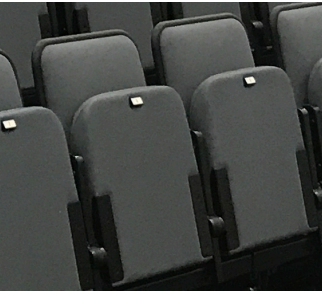
Espace 628



Evolve



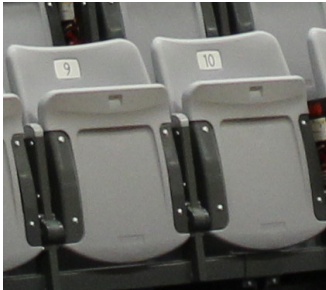
Espace 628T



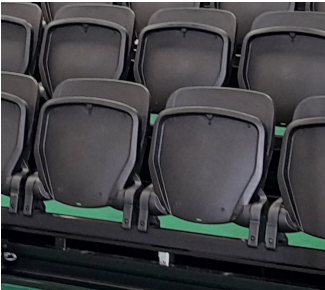
Accolade



Campus Fold Down



Zenith



Centura



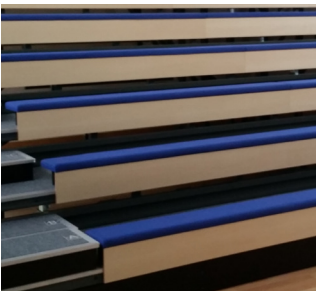
LIMS Wood



LIMS



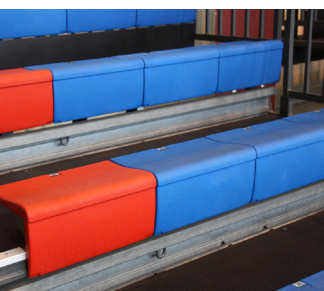
Chorus



Duet



Unity



Contour



## Material Specification

### Finishes

<b>General steelwork</b>	Multistage process comprising of chemical pre-treatment and epoxy powder coating, standard colour RAL 9005 matt black.
<b>Front beam</b>	Multistage process comprising of chemical pre-treatment and epoxy powder coating, standard colour RAL 9005 matt black.
<b>Rear beam</b>	Pre-galvanised or epoxy powder coating, colour RAL 9005 matt black.

### Specification

<b>Column</b>	Rows 1-10: 100 x 50 x 3mm, R.H.S (BS EN 10219-1). Rows 11-17: 100 x 50 x 3mm, R.H.S. + 50 x 50 x 3mm S.H.S. (BS EN 10219-1). Rows 18 & above: 100 x 50 x 3mm, R.H.S + 100 x 50 x 3mm R.H.S. (BS EN 10210).
<b>Column foot</b>	Pressed steel, 3mm thick (BS EN 10025).
<b>Wheels</b>	100mm x 40mm wide, with polyurethane tread, c/w needle bearing (4 wheels per column).
<b>Braces</b>	Rows 2-13: 50 x 45 x 2.5mm roll formed 'C' section (2.5mm mild steel to BS EN 10025). Rows 14 & above: 50 x 50 x 3mm S.H.S. (BS EN 10219-1).
<b>Front beam</b>	76 x 74 x t2.3mm roll formed section (Zinc plated mild steel; EN 10147).
<b>Rear beam</b>	175 x 50 t2.3mm roll formed section (Zinc plated mild steel; EN 10147).
<b>Deck boards</b>	18mm phenolic faced, WBP combi plywood or carpeted Finnish plywood (All FSC certified).
<b>Rails</b>	Outer framework of rail: ERW 1¼" x 1¼", 14 SWG. Vertical bars - ¾" x ¾" x 16 SWG SQ tube. Horizontal Bars - 1½" x ¾" x 16 SWG REC tube. All round tube (type E only) is ERW 38mm x 2mm. Steel Grade: BS6323 part 5: 1982 ERW1.  Perforated steel sheet is to BSEN10130:1999 DC01.
<b>Vertical load</b>	4kN/m² (5kN/m² where applicable).
<b>Horizontal load</b>	7.5% of vertical load.
<b>Rail load</b>	All rails comply with BS13200 Part 3: 2005 and Part 5: 2006
<b>Row locks</b>	Heavy duty, 5mm steel, foot level, automatic latch locks. Gravity operation with spring assistance. Heavy duty, 5mm steel, vertical interlock at all column tops.
<b>Platform levels</b>	Cantilever slide arms are fully adjustable and transfer load onto 35mm dia. nylon rollers. Platform loads are transferred through moulded nylon transfer pads. Loads are transferred at 2 column positions and minimum 4 row support positions.
<b>Power operation</b>	Friction power drive – Direct to floor through multiple, 150mm dia. rubber tyred drive rollers. Standard motor size – 0.37kw single phase or 0.25kw 3-phase

### Standards

<b>Strength and stability</b>	The TX system can be supplied to comply with most worldwide standards. TX is also approved for use in areas with potential seismic activity.
<b>Flammability</b>	Decks and fascias can be supplied to an appropriate FR grade if required. Standard carpet is heavy duty contract quality conforming to BS5287 (BS4790 low radius of char) and BS 13501:2002 Euroclass C <sub>f</sub> -s1 (sheet) or Euroclass B <sub>f</sub> -s1 (tile).

### Notes

Floor construction and surface finish play an important role and greatly affect the operation of telescopic seating. A smooth, hard, level floor is an essential element, e.g. smooth concrete or hardwood are ideal surfaces. Please ask us for more details and point load information.

Full fascias are available for most standard combinations of row rise, row depth and chair type, but in a few cases only reduced height fascias may be possible. Please check with Audience Systems.

TX is suitable for indoor environments only.

**All information given above is for standard product. Please ask us about customisation.**

Audience Systems Ltd reserves the right to change the design, specification or price of products without prior notice.