

Camatic Seating

# QUANTUM SEATING

SYSTEM SPECIFICATIONS

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**CAMATIC**  
S E A T I N G

# QUANTUM 770/850/960 SEATING SPECIFICATIONS

## 1. THE SYSTEM:

- Two piece shell with concealed hinges
- Gravity tilt mechanism.
- Tilt Seat mechanisms are safe guarded with no finger or clothing entrapments
- Chairs mounted to continuous beam at fully adjustable, uniform seat centres.
- All seats are independently mounted with no connection to adjoining chair
- Beam mount brackets totally independent of seat mount
- Floor (tread) or riser mount, beam support brackets available
- Suitable for infinite centre positions from a minimum of 470 mm
- Upholstery, arms and cup holders may be retrofitted.
- Optional back heights 770mm, 850 mm & 960mm.
- The 960mm back height requires an additional back attachment.
- Approximate seat weight 5.6 kg

## 2. CONFIGURATION / DIMENSIONS

### Seat Dimensions:

Seat dimensions meet the following requirements.

Seat Centres - without arm	- 470mm	[18.5"] (Minimum)
Seat Centres - with arm	- 480mm	[19"] (Minimum)
Seat Width	- 420mm	[16.5"] (Minimum)
Overall Dimension (Seat Up -770 back)	- 325mm	[12.75"] (Maximum)
Overall Dimension (Seat Up – 850 back)	- 345mm	[13.5"] (Maximum)
Overall Dimension (Seat Up – 960 back)	- 420mm	[16.5"] (Maximum)
Overall Dimensions (Seat Down 770 back)	- 530 mm	[21"] (Maximum)
Overall Dimension (Seat Down 850 back)	- 560 mm	[22"] (Maximum)
Overall Dimension (Seat Down 960 back)	- 610 mm	[24"] (Maximum)
Back Height (above floor)	- 770/850/960 mm	[30"/33.5"/37.8"] (Minimum)
Seat Height	- 450mm	[17.5"]

## 3. MATERIALS

### Mounting Beam:

Extruded, hollow section aluminium beam of alloy 6005A T6, clear anodised to 20 m.

Beam shall provide continuously variable location of mounting brackets to allow co-ordination of mountings with precast reinforcement and building fixtures. Seating to attach to beam independently of brackets, allowing infinitely adjustable, even seat spacing and accurate aisle alignment.

## Plastic Components:

### **Plastic seat and back components**

Are injection moulded co-polymer polypropylene. Plastic formulation is fully compounded with ultra-violet inhibitors prior to the manufacturing process. UV inhibitors are added at a rate to ensure no significant colour or plastic deterioration for a period of 5 years.

When specified or required FR additives are also compounded into the plastic formulations.

### **Hinge Mechanism:**

The Hinge / pivot mechanism is injection moulded glass reinforced polyamide black in colour and contains ultra violet inhibitors.

Hinge / pivot mechanism return seat to a 3/4 position automatically through a gravity tilt counter-weight system, requiring no adjustment or lubrication for the life of the installation. Counter weight are fully enclosed in rear of seat component. No spring return systems are used. Hinge mechanisms perform to the requirements of ASTM F851-83 (remain operational after 100,000 cycles of operation).

### **Standards: (Side Supports)**

The standards/ supports are injection moulded glass reinforced polyamide, black in colour and contain ultra violet inhibitors. Standards provide tamper resistant quick action attachment to the beam, allowing reconfiguration of seating without disturbance of anchors, substrate or building finishes. Connection of supports to backrest is via two vandal proof corrosion resistant screws. The supports provide connection for armrests that may be installed on delivery or at a later date (for armrest details refer to Accessories)

### **Backrest Component:**

The 770 mm backrest has a minimum height of 335mm [13"] above the seat component. The 850 mm backrest has a minimum height of 400mm [15.5"] above the seat component. The backrest extends below the seating surface to provide foot protection. The upper face (sitting surface) is free of fasteners and textured to minimise slipping, and capable of accepting upholstery pad on delivery or at a later date. Rear face is free of dirt or water traps, smooth, with minimal texture.

### **Seat Component:**

The seat depth as measured from the point of the backrest is a minimum of 420mm [16.5"]. Seat upper face (sitting surface) is free of fasteners and textured to minimise slipping, and capable of accepting upholstery pad on delivery or at a later date. Lower face is free of dirt traps, smooth and with minimal texture. The leading edge of the seat includes an angled recessed location for seat number.

## **4. FIXINGS**

### **Concrete Riser Mounting:**

Quantum is suitable for mounting to risers with minimum riser height 175mm [7"] and maximum height 600 mm [23.5"]  
Note: Clients remain responsible for ensuring the provisions of adequate fall barriers for each row behind Quantum Seating ( applies particularly in high riser situations).

Anchors are to be installed to Camatic specification, and meet the seat design loads. Standard fixings are, 2 or 3 x M10 mechanically galvanised studs (configuration depends on riser height), chemically set, to a minimum 65mm embedment, with mechanically galvanised nut and washer.

### **Concrete Tread Mounting:**

Anchors are to be installed to the Camatic specification, and meet the seat design loads. Standard fixings are 3 x M10 HKD Mechanically Galvanised with High Tensile Hex Bolts.

### **Removable Mounting Brackets (Tread Mounting Only):**

Mounting brackets can be supplied to convert fixed stadium chair design to two (2) and three (3) seat removable units. These units are fixed with two (2) x M10 anchors with hand-wheels that require no tools to remove and remain attached to bracket when not in use.

## **5. QUANTUM ACCESSORIES – (where chosen and installed)**

### **Arm Rests**

Injection moulded glass reinforced polyamide armrests attach directly to the chair at the point provided on the standard. Armrests are closed hollow section and free of external ribbing, with smooth top and front surfaces to prevent entanglement in clothing. Polyamide is black and contains ultra violet inhibitors.

All seating units are capable of accepting armrests on delivery or at a later date

### **Cup-holders:**

Rear-mount Cup-holders are designed specifically for attachment to the chair; the plastic is injection moulded co-polymer polypropylene and is compounded with ultra-violet inhibitors for outdoor applications prior to the manufacturing process. Colour to match that of the seat and backrest.

Arm mount cup-holders are designed specially for attachment to the Quantum arm. These cup-holders are generally used in the front rows and companion chairs. The cup-holder is of injection moulded Polyamide, black to match the arms and contains ultra violet inhibitors.

### **Seat Pad:**

Seat pad is fixed at no less than five (5) positions, one (1) in each corner and an additional centre front fixing point. The pad is constructed of injection moulded polypropylene inner (typical wall thickness 3.5mm) with a 25mm [1"] moulded polyurethane foam cushion.

Cover is typically upholstered in an easy clean UV stabilised marine grade vinyl suitable for indoor and outdoor applications. Fabrics to client's requirements may be specified for indoor applications.

*It is recommended that the customer choose an Eco Preferred Fabric in order for the chair to obtain a high Green Star rating.*

In harsh outdoor applications, the moulded urethane foam cushion can be replaced with a 25mm [1"] closed cell foam cushion to prevent absorption of moisture.

### **Backrest Pad:**

Back pad is fixed at no less than five (5) positions, one (1) in each corner and an additional centre front fixing point. Pad is constructed of injection moulded polypropylene inner (typical wall thickness 3.5mm) with a 12 mm [1/2"] polyurethane foam covering. Cover is typically upholstered in an easy clean UV Stabilised marine grade vinyl suitable for indoor and outdoor applications.

Fabric to client's requirements may be specified for indoor applications.

*It is recommended that the customer choose an Eco Preferred Fabric in order for the chair to obtain a high Green Star rating.*

In harsh outdoor applications the moulded urethane foam cushion can be replaced with a 12mm [1/2"] closed cell foam cushion to prevent absorption of moisture.

### **960 mm High Back Extension**

An extra high back extension is available (only with upholstery pad).

### **Seat Numbers**

Seat Numbers snap into front edge of seat and angle upward, with an option to have further mechanical fixing if required

### **Row Identification**

Row Number plate is black with white numbering and provides for up to 3 digits 12 mm {1/2"} in height

### **Tablet Arms**

Details on request

## **6. PERFORMANCE / STANDARDS / REFERENCES**

### **General:**

The completed Quantum chair installation will provide the following minimum performance requirements.

Anchor Bolts:	All concrete fixings are non-corrosive material.
Fasteners:	All fasteners Non corrosive.
Metal Finishes:	All finishes are suitable for outdoor exposure / marine environments.
Plastic Components:	Exterior grade plastics. UV Stable
Seat Pivot:	Seat will rise without assistance, by gravity system. Spring systems not used
FIFA	The Quantum complies with the FIFA recommendations for stadium seating.

### **Manufacture:**

The following manufacturing standards are adhered to:

Available on request

### **Durability Testing:**

The Quantum range of stadium seating complies to the following.

Available on request

### **Plastic Ultra Violet Deterioration:**

Quantum seat and backrest exceed the following test requirements:

Available on request

### Flammability:

The Quantum chair and / or materials used in its manufacture comply with the standards listed below:

Available on request

### Management Systems:

Camatic seating is accredited through DLCS for the following:

ISO 9001:2008 Quality Management Systems

## 7. INSTALLATION

### Mounting Brackets and Beam

Available on request

### Chairs

1. To be delivered fully assembled in manufacturers packaging and able to be placed directly on beam.
2. Seating positions to be adjusted to ensure accurate aisle alignment and maximum even spacing in each row.
3. Maintain spacing at mid row angle changes up to 10 degrees by positioning seating across the angle as required.

### Cleaning

General: Removal of bags and final clean by others.

## 8. WARRANTY

### General:

Available on request