



Dafne Wood

Performing Arts Centres



01 Technical Description

Back

The inner support is made of 55mm x 30mm solid timber beech pieces that create a solid rectangular support for 9 rubber bands (4 vertical of 80 x 380mm and 5 horizontal of 80 x 500mm). Each of the two vertical wooden pieces has a 15mm bended metal plate totally embedded into the structure that hosts the polypropylene tongue of the assembling system to secure the back to the side standards of the chair. This frame is covered with M4 open cell CMHR foam of 40Kg/m3 density shaped to two part design on the surface. The resulting block of inner wooden structure & CMHR 4055 foam acts as a foundation and stopper for the tipping seat. The back is upholstered with a detachable cover and finished with an outer 13mm plywood panel with concealed fixing

Seat

The inner support is made of 15mm x 30mm steel profile, shaped & bended in cold that serves as a "one piece rectangular hoop" for five serpentine springs of 3mm thickness and seven turns each. The self-lifting mechanism is inserted within the metal frame: a 30mm Ø round shaft with a slow tipping system integrated inside. The frame with the tipping mechanism is totally integrated with M3 fire class cold moulded polyurethane foam of 65Kg/m3 density shaped to the contour of the springs on the bottom. The seat is upholstered with a detachable cover and finished with a 13mm outer plywood panel with concealed fixing

Aisle & Middle Standards

Wooden pieces of 34mm Middle Density Fiberboard structure with outer plywood panels. The MDF used is composed of wooden fibers that have been previously shred to eliminate its existing lignin, then hot pressed with synthetic resins to get its middle density. Meanwhile the two outer plywood panels are made out of nine glued and pressed boards (8 interior boards of birch + 1 outer board of beech)

The standards play a key role in the assembling process of the chair: for better stability and easy maintenance these chairs are provided with a tongue & groove system. Thanks to it, all backs are perfectly adjusted with the standards creating a solid combination with no gaps between them. All standards have one polypropylene groove screwed to each side of the structure - these host the protruding tongues of the back that, once completely inserted, are secured with a safety nut underneath.

Floor fixing is concealed. Each wooden standard is imbedded over a metal plate of 8mm thickness with two extruding 20mm Ø round shafts of 8mm metric. Then every standard is screwed to the plate with two screws of 8mm metric and concealed head

Numbering

Seat: Embroidered 30mm number on the upper edge of the seat (1-2 digit)

Row: Embroidered 50mm number / letter on aisle upholstered standards (1-2 digit)

01 Technical Description

Upholstery

Seat and back covers are fully upholstered in a single piece with zip - both are securely fastened to the flat surface of the cushions by means of Velcro[®] stripes to facilitate ease of re-upholstering. All double stitching with Serafil 40 thread made from 100 % polyester continuous filaments of high tenacity.

Fire Barrier

M1 fire class textile made of 100% Panox that provides the upholstery with additional flame retardant properties.



02 Finishes & Tests

Fabric

M1 fire class TREVIRA CS **Mini fabric** from **FIDIVI TESSITURA VERGNANO (ITALY)**: produced from 100% Polyester TREVIRA CS and manufactured using environmentally friendly non-metallic dyestuffs. This fabric achieves full euro flammability award: Italian Classe 1 IM, British BS7176; 1995 Medium Hazard, French M1 and German B1. These durable fabrics have non-pilling properties.

Composition: 100% Polyester TREVIRA CS. Non metallic dyestuffs. Recycled / EU Flower certified

Weight: 340g/m²

Abrasion Resistance Pilling: 100,000 Martindale cycles (full details available) (ISO 12947-2:2000)

Flammability: UNI 9174 - 8456 Class C1; UNI 9175 Class 1 IM; DIN 4102 Class B1; NF 92501-7 Class M1; NF D 60013 Class AM18; EN 1021-1 & 2; BS Crib 5; BS 7176 Class Medium Hazard; EN 13773 Class 1 O; ENORM 3800-1 Class B1,Q1,TR1 California TB117; USA NFPA 701; USA NFPA 260; IMO A 652 (16) Part 8 Upholstery

Light Fastness: 6 (ISO 105-B02:1999 - Xenotest)

Fastness to Rubbing: 4/5 (ISO 105 - X12:2002 Crockmeter)

Pilling 2000 rubs: 5 (ISO 12945-2)

Maintenance: Washable to 60°C. Vacuum regularly. Wipe clean with a damp cloth or shampoo using appropriate upholstery shampoo composition.



02 Finishes & Tests

Thread

Serafil Sewing thread from Amman and Soehne Gmbh (Germany)

Linear density (dtex) (ISO DIN EN ISO 2060): approx. 504 * 3 dtex

Linear density (Nm) (ISO DIN EN ISO 2060): approx. Nm 20 / 3

Breaking force (ISO DIN EN ISO 2062): approx. 8960 cN

Elongation at break (ISO DIN EN ISO 2062): approx. 19 %

Colour fastness to artificial daylight (ISO 105 B 02): 5

Colour fastness to perspiration (ISO 105 E 04): 4

Colour fastness to washing 95°C (ISO 105 C06 - E2): 3-4

Colour fastness to rubbing 1) dry (ISO 105 X 12): 4

Colour fastness to rubbing 2) wet (ISO 105 X 12): 4

Stability

Compliance with Standards UNE EN 12727:01 - Furniture. Ranked Seating. Test Methods and Requirements for Strength and Durability.

Seat and Back Static Load Test (Fv=2000N, Fh760N, n=10 times):

Correct

Horizontal Forward Static Load to Back (Fh=760N, n=10 times):

Correct

Vertical Static Test on Back (Fv=900N, n=10 times): Correct

Arm Sideways Static Load Test (Fh=1000N, n=10 times): Correct

Arm Downwards Static Load Test (Fh=1000N, n=10times): Correct

Back Impact Test (M=5kg, a=68°, n=10 times): Correct

Arm Impact Test (M=5kg, a=68°, n=10 times): Correct

Tipping Seat Operation Test (n=100,000 cycles): Correct



03 Acoustics

Conditions of the Test

Cold moulded foam (seat)
CMHR foam (back)
Upholstered back with outer plywood panel
Upholstered seat with outer plywood panel
Fabric 90% wool + 10% nylon 770 gr/m
12 chairs (4 rows of 3 chairs)
1040mm Row Distance

Empty Seats

**Practical sound abs.
coefficient, α_p**

Freq. (Hz)	α_p
125	0.25
250	0.50
500	0.60
1000	0.60
2000	0.70
4000	0.70

Occupied Seats

**Practical sound abs.
coefficient, α_p**

Freq. (Hz)	α_p
125	0.35
250	0.60
500	0.75
1000	0.80
2000	0.90
4000	0.95

04 Dimensions

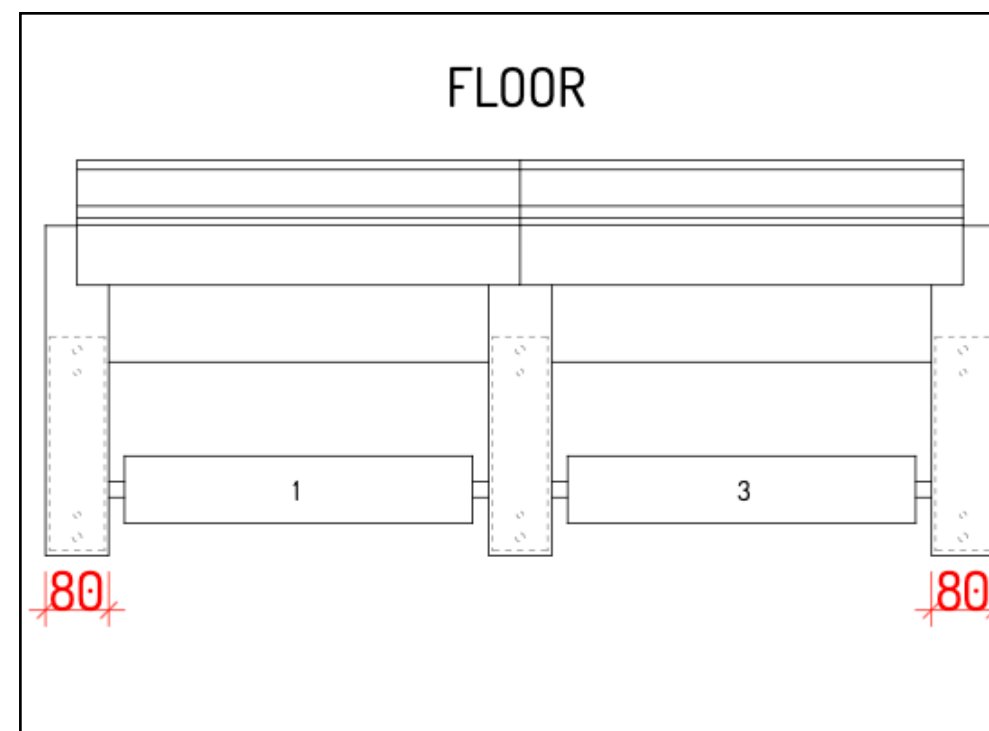
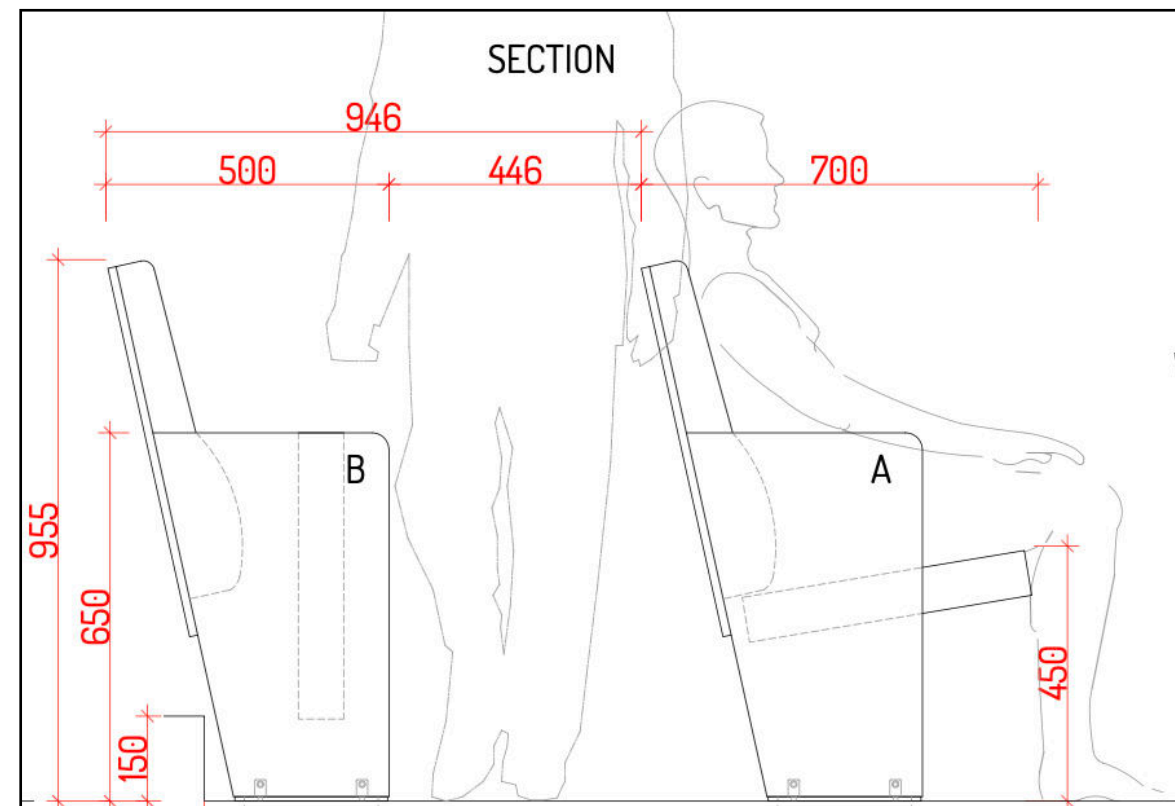
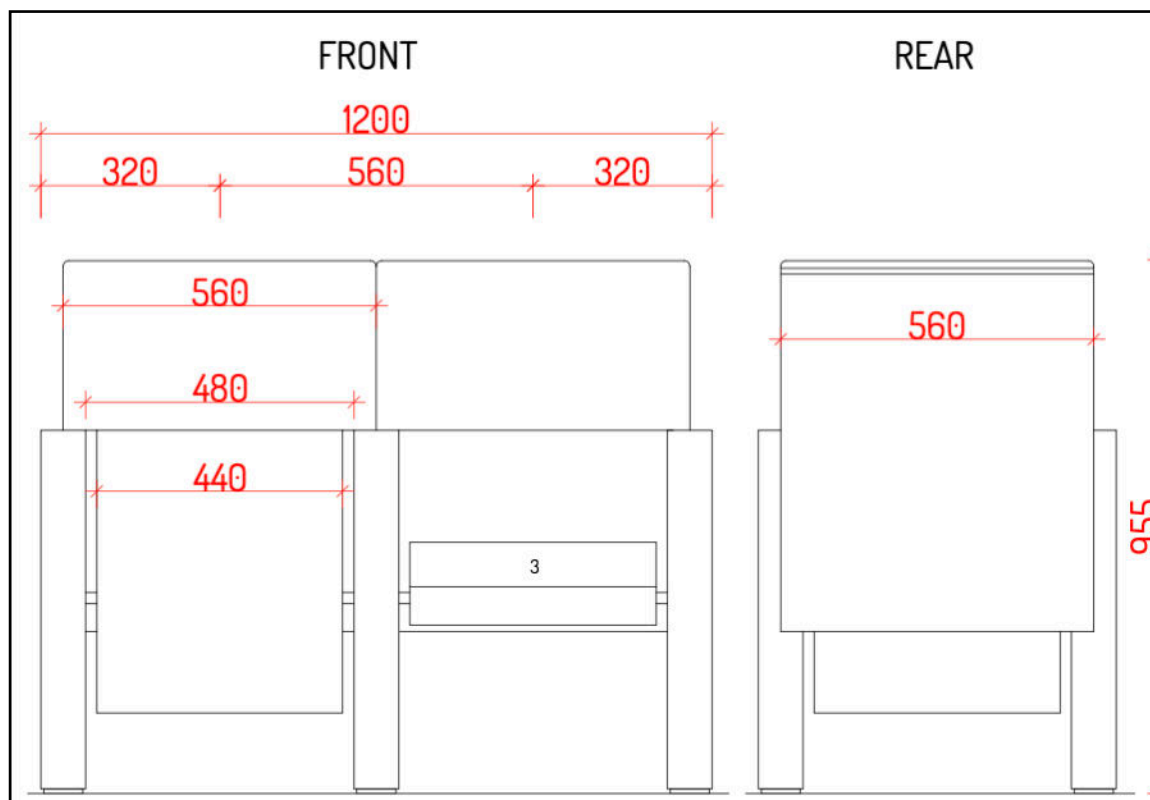
General Dimensions

Overall Height: 955mm.

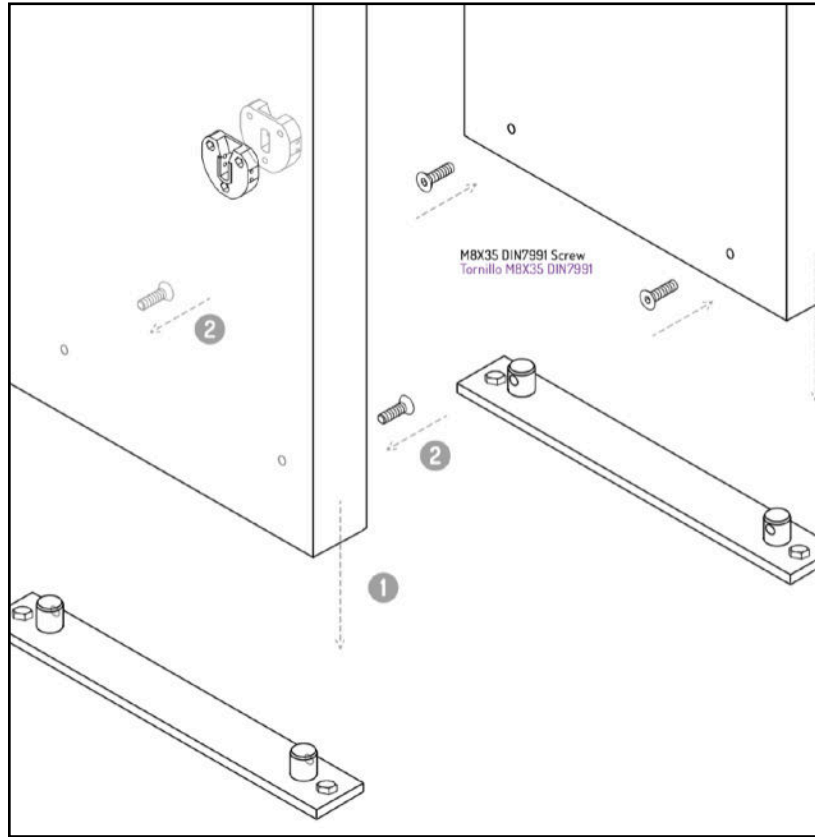
Seat Centres: 520 to 600mm.

Seat Height : 450mm

Depth: 500mm. Special Dimensions available (450-550mm)

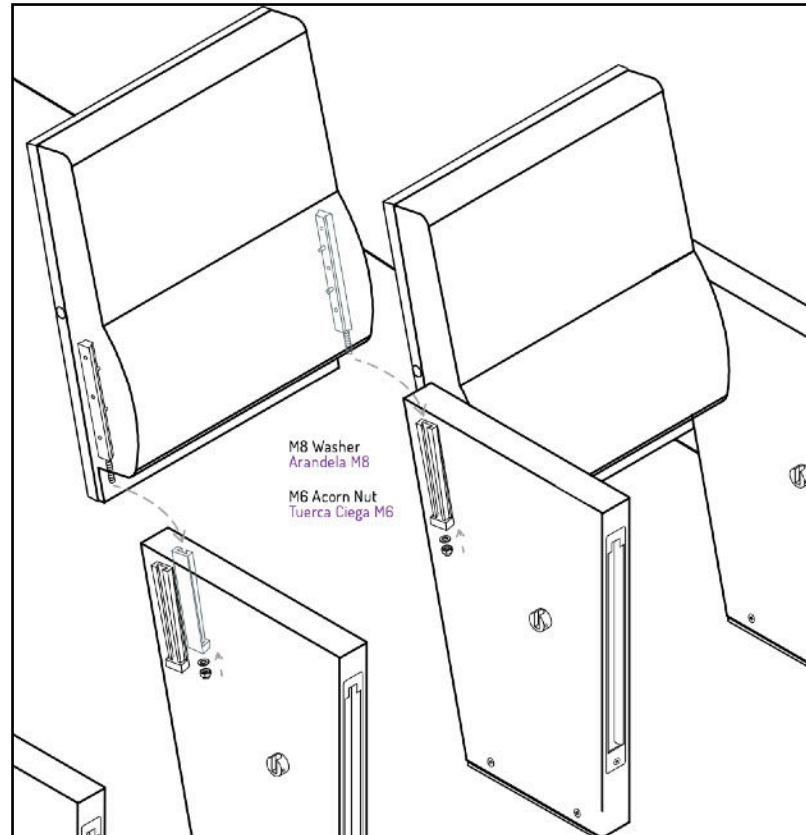


05 3 Step Assembly



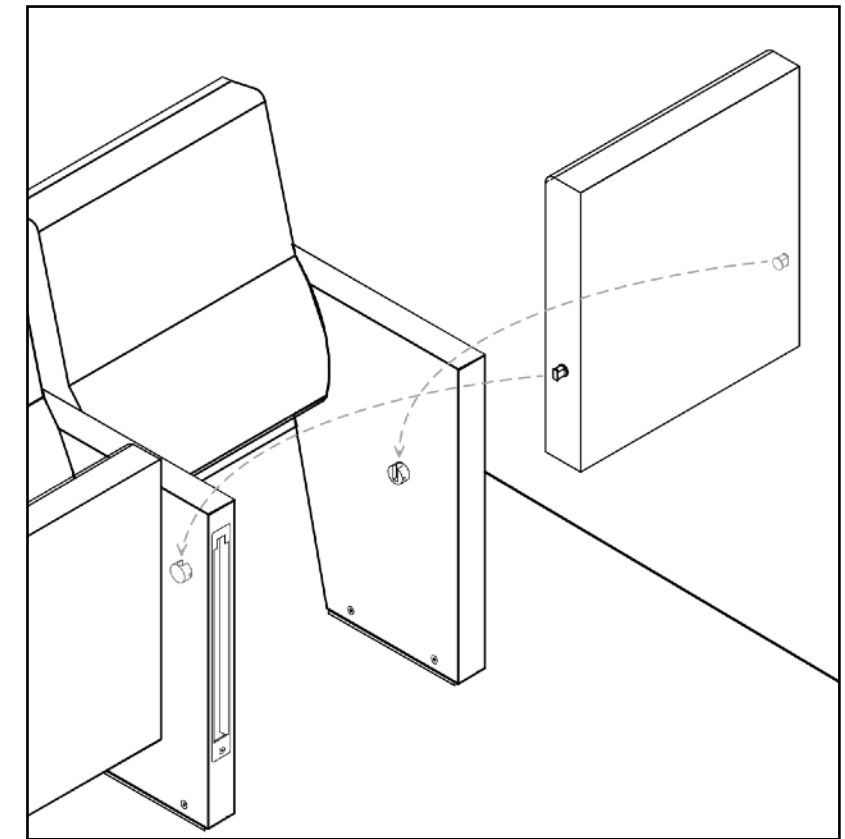
1. Fixing Plates & Insert Standards

Fix plates onto the floor
Insert standards on top of the plates; secure from inner sides with 2 flat head bolts



2. Assembly of Back to Standards

Slide the back into the standards (tongue & groove system)
Secure the back from underneath with safety nuts



3. Insert the tipping seat

From above, insert the tipping seat cushions into the hinges of the standards.

06 Options & Accessories



Folding Table On Back

*Special high backs for stepped venues.
Power integration*



Folding Table with Light

*Special high backs for stepped venues.
Light activated with table*



Removable with castors

*Sets of 1-2 chairs for disabled bays.
Swing away arms also available*

07 References

Sala Comú l' Escaldes - Engordany, [Andorra](#)
Anton Bruckner University, Linz, [Austria](#)
Centennial Planetarium, Calgary, [Canada](#)
Pole Mécanique, Palasieu, [France](#)
Theatre de Caen, [France](#)
Serre Numérique, Valenciennes, [France](#)
Videli HQ, Paris, [France](#)
Kerry Logistics HQ, [Hong Kong](#)
Clemenceau Medical Centre, Amman, [Jordan](#)
Environmental Public Authority, Kuwait City, [Kuwait](#)
Sharqia School, Kuwait City, [Kuwait](#)
Swedbank HQ, Vilnius, [Lithuania](#)
School of Economics, Lisbon, [Portugal](#)
Colégio D. Diogo de Sousa, Braga, [Portugal](#)
Auditorio Jeronimo Martins, Carcavelos [Portugal](#)
Auditorio Uria, [Portugal](#)
Real Madrid Basket Press Centre, [Spain](#)
Salón Actos Escuela de Comercio de Gijón, [Spain](#)
Facultad de Filosofía y Letras, Barcelona, [Spain](#)
Auditorio IFEMA, Madrid, [Spain](#)

Facultad de Bellas Artes, Sevilla, [Spain](#)
Colegio de Graduados Sociales, Palma, [Spain](#)
Facultad Derecho, Murcia, [Spain](#)
Universidad Pública de Navarra, Pamplona, [Spain](#)
Auditorio Sede Cajamar, Castellón, [Spain](#)
Aula Magna IESE, Madrid, [Spain](#)
Salón Actos Universidad Politécnica, Sevilla, [Spain](#)
Escuela Técnica Ingeniería, Sevilla, [Spain](#)
Auditorio Adeje, Tenerife, [Spain](#)
Colegio Mayor Sta. María Europa, Madrid, [Spain](#)
Servei Territorial, Tarragona, [Spain](#)
Edificio CSIC, Madrid, [Spain](#)
Corporación Aragonesa de TV, Zaragoza, [Spain](#)
Edificio CATEPS Universidad de Sevilla, [Spain](#)
Colegio de Medicos, Santiago, [Spain](#)
Centro Cultural Soreasu, Azpeitia, [Spain](#)
Centro Cultural Ágora, La Coruña, [Spain](#)
Dewan Ruhler HQ, Dubai, [UAE](#)
National Media Centre MOI, Dubai, [UAE](#)
Banco Santander HQ, London, [UK](#)



#loveyourvenue