

THE MENUHIN HALL TECHNICAL SPECIFICATION

AUDITORIUM

- The Concert Hall is 15.8m wide x 21m long x 11.5m high above stage.
- In cross section, the roof steps in and slopes in at 60 degrees to the horizontal above the ceiling level of the first floor balcony.
- Performers and audience share the same space. Seating is at two levels, the stalls at a shallow rake, and a single “wrap-around” balcony that encourages visual and acoustical intimacy.
- The side balcony fronts are 11.4m apart and 15.7m front to back.
- The centre area of seats in the stalls holds 180 people. 2 wheelchair places are provided within the body of the stalls, by the removal of 6 seats each.
- Seats in the stalls side slips number 15 including 1 wheelchair place on audience right.
- On the first floor there are 68 seats facing the stage, 32 behind the stage and 20 on the sides, again including 2 wheelchair places.
- In addition to the 32 potential chorus seats, further chorus can be accommodated on risers at the back of the stage, with access via the side aisles. Currently these risers have not been purchased.
- 8 chorus seats can be removed for additional musicians in the balcony.
- The total seat count is therefore 315 maximum with 3 wheelchair places and adjacent companions included.
- 309 seats when all 5-wheelchair places are deployed.
- 301 seats when all 5-wheelchair places are deployed and the in house sound desk is in use.
- 297 seats maximum when the stage extension is in use and 3 wheelchair places are provided.
- The side seats are also suitable for ambulant disabled who wish to transfer from a wheelchair to a seat. The audience at the sides, connect the entire body of audience with each other and with the performers.



- 150mm dia. duct for temporary cabling from downstage left stage box to house mix position at rear right corner of stalls.
- Additional cable pass openings to both sides of stalls and balcony and to control room.

STAGE

- The permanent stage depth is 6.7m; upstage width 8m; downstage width 10m, increasing to 11.4m at the front of the stage. Accommodates up to 35 players.
- The extended stage depth is 7.9 m; upstage width 8m; downstage width 10m, accommodating an orchestra of up to 45 musicians.
- Access for musicians to the stage is via rear central lobby with 850mm wide doors to the stage.
- Access for large instruments to the stage is through the piano stores on each side and 1800mm wide doors onto the stage.
- Access for leader, soloists, and conductor via downstage right doors 1150mm wide.
- The stage depth can be extended by 1.2m by removing stage front panels, two people raising 5 no. in situ scissor lift panels, and replacing the stage front panels on the newly created stage front.
- The stage riser is 710mm.
- Mobile steps at each side of the stage can be relocated at either side of the front row of seats. The front row of seats is not used in the extended stage configuration. The end seats of the front row can be removed.
- Height above stage upstage is 5.6m to underside of canopy for 1m upstage.
- Height to underside of chandelier over stage is 7.6m.
- Height to ceiling over stage is 11.5m.



BACK STAGE ACCOMMODATION

- The Green Room measures 5.55m x 6m and is 3.5m high.
- The communal changing room / practice room measures 5.2m x 3.5m x 2.3m high.
- The individual changing room/ practice room measures 2.4 x 2.4m x 2.3m high with an ensuite toilet and shower.
- Three other toilets are available backstage including one disabled wc.
- A network of cable trays, hooks and capped openings for temporary cabling between stage and Green Room, and outside broadcast van is provided.



PERFORMANCE EQUIPMENT

Lighting structure

- 8 chandeliers light the stage and the concert hall.
- Each of the front 6 chandeliers has 6 no. 13 amp performance lighting circuits with Powercon connectors. 6 no. houselights per chandelier are hard-wired.
- The installed performance lights are at two levels on each chandelier with 4 no. + 4 no. Source 4 PAR lights fixed through the frames with M10 bolts. The two rear chandeliers are fitted with 3 no. profile lamps on the upper level.
- Each chandelier has 6 upward facing houselights and one central emergency light on the underside of the cable basket.
- The timber screen above the stage has 6 openings for 12 performance lights to the stage and the chorus seating.

- The sideslips of the balcony have 6 no. 15amp circuits each for further theatrical fittings.

Dimming and control

Within the dimmer room there are

- ETC Sensor dimming system with 72 ways
- Control system ETC Unison with 4 outstations.
- DMX patch

Rigging to chandeliers

Each pair of chandeliers has one motorised winch and line shaft in each of 4 structural bays within the ceiling bulkhead on audience right.

Each winch drives 2 Hexaflex shafts connected to a grooved drum with upper and lower limit switches. Steel wire ropes extend up from the bulkhead to the auditorium ceiling and are bridled down to each chandelier.

Chandeliers

32mm dia. steel frame, grit-blasted and lacquered finish.

The design load of each chandelier and lights and cable is 250kg. This load limit will be marked on each chandelier after testing.

Hoist control

One winch control point is located in audience right side slip balcony fitted with a key switch for security. There is an emergency stop button and separate 3 position rotary switches for each winch motor.

Projection Screens

- Projection screen 2m high by 3.6m wide. Throw from control room 21m.
- Stumpfl Monoblox Screen 10" x 7.5" for rear & front projection

Acoustic adjustment

- Manually operated acoustic curtains to side and end walls on Triple E E66 rail.

Other items

Supplied by Client

- Orchestra chairs
- Music stands
- Conductor's podium, chair, stand
- Acoustic curtains

AV Specification

Audio

Hall

2x KV2 EX12 12" Powered Loudspeaker (permanent)
2x Tannoy i8MP Powered Loudspeaker (mobile)
1x Sennheiser Infra-Red Assisted Listening System
1x Ampetronic Induction Loop Assisted Listening System
Assorted AV Facilities Panels

Control Room

1x Yamaha 01V96 Digital Mixing Console
2x Tannoy Reveal Active Monitor
1x PC-based recording system based on Beyerdynamic Steno-S software
1x Samson C-Control Monitor Controller
1x Tascam CC-222 MKIII CDRW/Cassette Combi
1x Sonifex RB-MA2 Dual Mic Preamp
1x Sonifex RB-DA6 Dual 6 Way Distribution Amp
1x Biamp Nexia PM Audio System Controller/Automixer
1x Beyerdynamic DT250 Headphones
Audio and Data Patchbay

Microphones

1x Trantec S4.5MD Handheld Radio Mic
1x Trantec S4.5LM Lapel Radio Mic (a headset mic is also available for use with this system)
2x Audio Technica Pro49QL Lectern Mic with desk stand
2x Shure SM81 Condenser Microphone (suspended from roof)

Video

16:9 Widescreen Electric Projection Screen
Eiki LC-X70 5000 Lumen Projector with long throw lens
NEC NP 2150 Projector for rear & front projection
Toshiba SD34VB DVD/VCR
VGA link from stage to projector
Video Patchbay

Control

Cue Assistant-S IR/Serial Controller
Cue 16 Button Keypad

Panasonic Digital Video Camera – NV-GS250EB
Canon Digital Camera – IXUS 860IS
1 x K&M double lecter lamp + 16 x single lamps
2 x MasterPlug 45 meter Mains Cable Drums
2 x Sennheiser Instrument microphones – E614
1 x Sennheiser Vocal Microphone – E865 S
Gehringer Ultra DI Box – D120
3 x Addicom Radio Frequency Wireless Speaker System
2 x pairs of Kenwood KSC-35 wireless Walkie-Talkies
ETC Express lighting desk and RFU remote unit

HD Digital Cameras

DMP equipment – 5 Panasonic HD pan & tilt cameras (AW-HE50SE)
Panasonic Remote camera controller (AW-RP50)
Panasonic Multi-format live switcher (AW-HS400A)
Multi-view screen
Video recording onto Mac harddrive incl: FCP 7 editing software
Panasonic 42" Plasma foyer screen