



Technical Specification

Schauspielhaus

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Auditorium

Audience seating

Balcony	Balcony	168 Seats
	Balconyboxes	40 Seats
	<u>Prosceniumsboxes</u>	<u>= Lightingboxes</u>
		max. 208 Seats
Orchestra platform seating	Row A, B, C	45 Seats
	(Row A, B are on the Orchestra Lift)	
	Row 1 – 18 / 437 Plätze <u>Orchestraboxes = Apperanceboxes</u>	
		max. 482 Seats total
		690 Seats

All audience chairs are individually removable. The places for the fire safety guards are in the orchestra boxes or under the right tower..

Stage

Measurements

Orchestra platform	ca. 9,50 m x 2,25 m, mobile from -3,14 m bis ± 0
Ramphight	0,83 m above hall level
Goldportal (Schmuckportal)	ca. 9,00 m x 5,50 m
Technical Portal (Towers and Bridge)	ca. 11 m x 5,70 m
Forestage	ca. 9 m x 1,50 m with removable cover panels
Stage	ca. 12 m x 13,50 m
Substage	- 3,14 m
Rearstage	ca. 12 m x 6,50 m x 6,50 m
Sliding stage gates	3,20 m x 6,40 m
Goods lift (Clearance)	1,95m x 6,60 m x 3,99 m Load capacity: 10.000 kg

Machinery

General

Fly bars: 5-ropy 5 mm - Precision steel pipe 50 mm / 5 mm
 Fly bars can be dismantled between the suspension points
 Computer controlled TTS (Theatertechnische Systeme Syke), SIL 3
 Grid: Machinery width 65/65 mm,
 Grid: Area load max. 100 kp/m²
 Main control desk: 1st Gallery tower left
 Side control desk: 2nd Gallery tower left

Upper machinery

Technical ceiling auditorium

Dome hoist, Lighting hoist:
 Z1 (Revolution hoist) + Z2 (Iffi hoist)

E-hoists	
Width flybar:	- Z1: 5,00 m - Z2: 2,00 m
Drive:	- Z1: +0,30 m - 8,88 m - Z2: +0,30 m - 8,80 m
Load capacity:	- Z1: 400 kg - Z2: 200 kg
Speed:	- Z1 + Z2: 0 - 0,3 m/

Forestage

V1 5 Point hoist between Goldportal

Drive: + 0,30 m to 5,80 m
 and fire curtain
 Load capacity: max. 50 kp / Point hoist
 Speed: 0 – 0,3 m/s

V2 3-ropy

Drive: + 0,30 m to 6,37 m
 Load capacity: max. 250 kp
 Speed: 0 – 0,3 m/s

V3 4-ropy

Drive: + 0,30 m bis 6,33 m
 Load capacity: max. 250 kp
 Speed: 0 – 0,3 m/s

V4 Lighting hoist 4-ropy

Fly bar system with offsets
 Drive: + 0,30 m to 6,57 m
 Width: 7,81 m
 Load capacity: max. 250 kp
 Speed: 0 – 0,3 m/s

Downstage of curtain line

N1 (House curtain) E-hoist, led

Fly bar width: 11,12 m
 Drive: + 1,50 m to 13,60 m
 Load capacity: max. 500 kp
 Speed: 0 - 1,0 m/s

N2 E-hoist, led

Fly bar width: 11,12 m
 Drive: +1,50 m to 13,60 m
 Load capacity: max. 500 kp
 Speed: 0 – 1,0 m/s

N3 E-hoist, led

Fly bar width: 11,12 m
 Drive: +1,50 m to 13,60 m
 Load capacity: max. 500 kp
 Speed: 0 - 1,0 m/s

N4 E-hoist, led

Fly bar width: 11,12 m
 Drive: +1,50 m to 13,60 m
 Load capacity: max. 300 kp
 Speed: 0 - 1,0 m/s

Stage

Lighting bridge

Drive: +1,5 m to 5,70 m
 Load capacity: max. 2 000 kp, 125 kg/m²
 Speed: 0 – 0,05 m/s

Bridge winch

1 Machine hoist, 4-ropy
 Drive: +0,30 m bis 6,25 m
 Load capacity: max. 300 kp - gesamt
 Speed: 0 – 0,3 m/s

Hoists 1 + 18

E-hoist
 Fly bar width: 12,92 m
 Drive: +0,30 m bis 16,80 m
 Load capacity: max. 400 kp
 Speed: 0 – 0,6 m/s

Hoists 2 – 17

E-hoist
 Fly bar width: 12,92 m
 Drive: +0,30 m bis 17,00 m
 Load capacity: max. 500 kp at 0 – 1 m/s
 200 kp at 0 – 2 m/s

Hoists 19 + 38

E-hoist

Fly bar width: 11,02 m

Drive: +0,30 m bis 16,80 m

Load capacity: max. 400 kp

Speed: 0 – 0,6 m/s

Hoists 20 - 28, 32 - 33, 36, 37

E-hoist

Fly bar width: 11,02 m

Drive: +0,30 m bis 17,00 m

Load capacity: max. 500 kp bei 0 –1m/s

200 kp bei 0 –2 m/s

Hoist 34 is short! Triax left+right
Hoist 36 is close behind the Triax

Hoists 29 + 31 linked,
Lighting hoist fitted

E-hoist

3 Point-Truss 500

Truss width 11,00 m

Drive with bumper and headlights:

+0,00 m to 14,80 m

Load capacity: max. 1 000 kp

Speed: 0 - 0,3 m/s

Hoist 35, Triax (Speaker hoist)

E-hoist

2x Special bar:

Diameter: 70 mm / Wall thickness.: 5 mm

Fly bar width, each 2,40 m outside

Drive with speakers: +0,00 m to 14,50 m

Load capacity: max. 500 kp

Speed: 0 - 0,3 m/s

Point hoist plant, PZ 1.1 - 1.5, ... 6.1 - 6.5

30x Point hoists in

6x Tracks parallel to ramp with each

5x expendable Point hoist

Drive: +0,30m bis 16,70m

Load capacity: max. 200 kp

Speed: 0 – 1,0 m/s

Panoramic hoists, P 1 - 4

2x Point hoist

Left and right of the galleries

Drive: +0,30 m bis 16,30 m

Load capacity: max. 200 kp

Speed: 0 – 0,6 m/s

Rear stage

Hoist K 1 - K 3

Drive: +0,30 m to 6,20 m

Fly bar width: 10,3 m

Load capacity: max. 500 kp

Speed: 0 – 0,3 m/s

Submachinery

Forestage – Orchestra platform with 4 Spiral pens -3140 mm to 0 mm

Stagefloor: black, with removable cover panels 0,5 m x 1 m x 4,5 cm

Load capacity: max. 500 kg/m²

Pointload: max. 350 kg

Drive: - 3,14 m bis ± 0

Speed: 0 - 0,1 m/s (noisy!)

Stage

Stagefloor: black, with removable cover panels: 0,5 m x 2,2 m x 8,5 cm

Load capacity: max. 500 kg/m²

Pointload: max. 350 kg

Substage, removable steel construction

Hydraulic station

Flow distributor with 6 connections

Pressurelimit: 130 bar

Pump 1: 80 l/min

Pump 2: 20 l/min

Hydraulic axle, electronically controlled

Load static: 2.000 kg

Load dynamic: 1.000 kg

Lift: 2,50m

Speed: 0 - 0,10 m/s

Compressed-air connections 0 – 10 bar

Cold- and Hotwater supply 3/4" at Substage

Lighting

Control

2x Eos TI, Protocols: sACN, ArNet is available via LSS Mastergate
293x 5kw Dimmer, 283 2,5kw Dimmern and 96x Switching circuits for HMI
48x 2kW Sinusdimmer Typ Swisson
24x Dimmer 2,5kW AlexMX for revolving stage
18x Switching circuits 3ph 32A / 1ph earthed plug for HMI - Typ Transtechnics

Lighting data is distributed via Ethernet / DMX cabling and a Lumen Radio system.
A DMX line extension or feed of a guest desk can be realised via ETC Net3 Concert with corresponding ETC DMX gateways.

Fixture list

Lighting Bridge

4x ETC Source Four Daylight
2x Martin MAC Ultra Performance
3x Altmann Profiler 2,5kw
2x ETC Source Four 750W Zoom 15°-30°
2x Robert Juliat Followspot 1,2kw HMI with DMX and manual iris

Domehoist

2x SolaFrameTheatre (Highend)
4x ETC Revolution

Forestage hoist

5x JB-Lighting P12 Profile

Auditoriumceiling

2x Spotlight ARC Motoryoke with Svoboda in MTS telescopic hoist TLM70
4x SolaFrameTheatre (Highend)

Boxpositions (each left and right)

2x SolaFrameTheatre (Highend)
2x ETC Source Four Lustre Zoom 15° - 30°

Balcony

3x ETC Source Four Daylight 19°/26°/36°/50°
Balconytip left and right each
1x P12
4x Profiler ADB Warp 12° - 30°
6x Profiler ADB Warp 22° - 50°

Stage

Motoryokehoist 30
2x Spotlight ARC Motoryoke with Svoboda
2x Martin Mac Ultra Profile
3x Arri D25/40 4KW Fresnel in LT Motoryoke with engine gate

Free assembly

6x Arri 5kW Fresnel with LT-Colourchanger MM350

6x Arri 4kW HMI Fresnel with LT-Colourchanger MV 350

4x Arri 2,5kW HMI Fresnel with LT Shutter DV300, Farbwechsler MM350

1x Arri 4KW Compact with Colourchanger MV350 in LT Motoryoke with engine gate

2x Arri 2,5kW Compact with Colourchanger MV300 in LT Motoryoke with engine gate

6x Arri 1,2kW D12 with LT Colourchanger MV200

6x Arri Sky Panel S60

6x LDDE NanoPix 3240-I-RGB WW LED Lightramps

8x Martin Rush Par

12x LDDE NanoPix Slim 1200

24x Astera Titan Tube

Sound

Front - PA

KS	2x T4 & 4x C12	FOH
	1x T4	Center
	2x PWK und 2x CPD Sub	incl. Amp/Controller
	2x CPA 1	with Firmod, delayline for the balcony
	6x CPA 04	koaxialer active small speakers for the positions under the balcony and the orchestralboxes

Surround - System

KS	5x T3
	14x CL 208 incl. Amp/Controller, in different shapes
	4x Special loudspeaker for up to 2 channel surround in the balconyboxes
	4x CPA 1202 selfpowered variable Line-Speaker 12x2"
	2x separate Subwoofer (Doppel-12" Bandpass) for surround in the back of the auditorium
	1x CPA 2 ceiling auditorium
	9x Omniwave speaker discreetly controlled at fixed positions in the auditorium
	4x mobile Omniwave

Fixed speakers stage

KS	2x CPD 15
	2x CL 106
	2x CPA 08
	2x C1214 with 2 x CWH Subwoofer in hoist 36 freely movable
	2x T10-F Triax systems 60/40° with 2x T10-W Subwoofer (ceiling fly loft)

Mobile speakers

KS	CPA 1 active Systems, also as monitor
	CPA 2 active Systems, also as monitor
	CPD 12x active Koaxialsysteme
	3x CPA 11 active
	6x CPA W active
	6x CPA Sub active
	15x CL 106 with Controlleramp CA4-U, max.12 separate channels
	4x CPD 04
	2x CPD 15
	2x CPD W2
	6x CPD1M
	6x CPA 04, coaxiale active small speakers
	8x C04, coaxiale small speakers, 100V

Sound desk system

Salzbrenner Polaris Evolution . Dante based Digitaldesk with 4 Access and View-modules 128/128 Matrix with redundant Scala processor

Two modules are located in the centre box, two more are mobile in the case for rehearsal
Independent Dante network in primary and secondary version.

Connection to the Audinate Dante Domain Manager. This enables tapping and recording of the signals in the recording studio and the other venue Connection of external signals also possible via AES 50, as well as MADI (opt. & Coax) & MADI TP and 8xADATes.

Waves SG Server with all essential (Mercury-Bundle) Waves Plug ins (integrated in Polaris)

Audio Server

FreeBSD-NAS Raid 5-ZFS, 16 TB, for backup, sharing and sound archive
MacServer MacPro with 2 x 48 TB Raid-5, for archive, sharing, file storage

Effect units (FX)

Lexicon PCM 91

Playback

Ableton Suite 11, 64 I/Os – connections to Dante network

Mikrophones (for all venues)

AKG SE 300 B with AKG CK 91 / AKG CK 93 / AKG CK 98

2x AKG C 414 B-TL II

1x AKG C 562 BL PZM

3x Crown PCC 170

6x Crown PCC 160

9x Shure Beta 91A

2x Neumann U 87

1x Neumann U 89

2x Neumann U 47

1x Neumann KM 84

2x Neumann KM 81 I

2x Shure Beta 56

39x Shure SM 58

8x Shure SM 57

11x Shure Beta 87A

2x Shure SM 58 beta

1x Shure 55 SH

2x Shure PG 56

2x Shure Beta 98

1x Sennheiser MD 441

5x Sennheiser E 604

2x Sennheiser MKH 416

3x Sennheiser MD 421

Wireless / Mikroports

20x channel Sennheiser 6000
with 8x SKM (Neumann capsules)
16x 6212 pockettransmitter
4x SK 6000 transmitter
MKE 1 capsules and VT capsules
8x Headsets Sennheiser SL
2x channel InEar – Monitoring Sennheiser EW 300 G2 with 8x receiver
2x channel InEar – Monitoring Sennheiser EW 2000

Cabling

Dante network with different mobile Salzbrenner NIO xcel converterinterfaces
to stage offsets pluggable: Mikrophone, Line, Network, 100 Volt, LWL and soundnet at every offsetbox
patch for 100 Volt, active speakers, mikrophones and speakon, LWL. Seperate sound net (Isolation
transformer)
UPS for the most important supplies

Hearing aid system

Sennheiser Guide Port with 16x Headband receivers and optional induction receivers

Video / Projektion

Projection

1x Panasonic PT-RQ22, 20000 ANSI Lumen, signal with 1920px x 1200px
fixed position balcony center

3x Panasonic PT-RZ120, 12000 ANSI Lumen, 1920px x 1200px

Various interchangeable optics and flying frames for all projectors available

Mobile screens

AV Stumpfl Monoblox 2,8m x 1,7m - Opera white / Optitrans

AV Stumpfl Monoblox 3,8m x 2,2m - Opera white / Optitrans

AV Stumpfl mobile screen 6m x 4m / 5m x 3,8m / 4m x 3m - Opera white/ Optitrans (only 4m x 3m)

Cabling

LWL / CAT Patch on various positions on stage

SDI over Yellowbrik LWL converter

HDMI / DVI / SDI / HDBaseT over active converter / extender (Lightware / Lynx Technics)

Lightware MX-FR33L, 32x32 crossbar with HDMI / DVI In and HDMI/DVI, LWL, CAT Out

Playback

Video FOH Box 5 on the balcony (open)

Network / LWL connections to Main control room/signal distribution

Control room stage right 2nd floor, stage total via PTZ cameras, sound monitoring

Riedel Intercom System with talk box and pelt packs

Pandoras Box 4x Output (V8), SSD, 8x HD-SDI Inputs

Laptop with Pandoras Box Manager, Widget Designer

MacMini (M1), macOS Monterey, 16GB RAM, Intel Iris 1536MB, 1 Output

Qlab 5 (other software on request)

Cameras

4x Sony PXW-Z90

2x Sony FS-5 on request

Teradek Bolt SDI/HDMI Wireless

More on request

Mixer

Blackmagic ATEM 1 M/E Production Studio 4k + Advance Panel

Blackmagic ATEM Extreme ISO

Blackmagic ATEM Mini Pro

Blackmagic ATEM Television Studio PRO

Ross Carbonite Black Solo

Roland V-40HD

Roland V-1HD

Various signal converters/ -extender and multi format Scaler

Subtitling

LED-Panels above and at the side of the stage, Playback over Spectitular from Box 5.

Various languages / texts simultaneously possible

Stage Management

Intercom

Cross-stage matrix-based intercom with fixed microphone units
Riedel RSP 1232 and DSP 1116, as well as 30x Riedel Bolero Beltpacks

Q-Light system

32x Separate Q-Light channels can be assigned multiple times / can be saved for performances
Fixed light signals for flyloft, light, sound and video
6x wireless light signals

Stagemanagement desk

ASC-Adunas BJ 2021, Dimensions: 1,50 m x 1,75 m x 0,81 m (H x W x D) Can be connected to either the left or right side of the stage. Height-adjustable. Can be operated with mobile touch panels / laptops

House call system

Separate paging for dressingrooms, technical departments, etc.
All loudspeakers with selectable monitoring options.

Video

In all venues, PTZ cameras and infrared cameras possible.
Various FullHD monitors available.