

FOCUS VENUE
PS-850
DI-SERIES

25
years



CONCERT SOUND EVOLUTION

EDITION 1/2018

EN

THE FUTURE OF THE LINE ARRAY IS STRAIGHT

**When line array technology evolves –
and beam steering reaches its next level.**

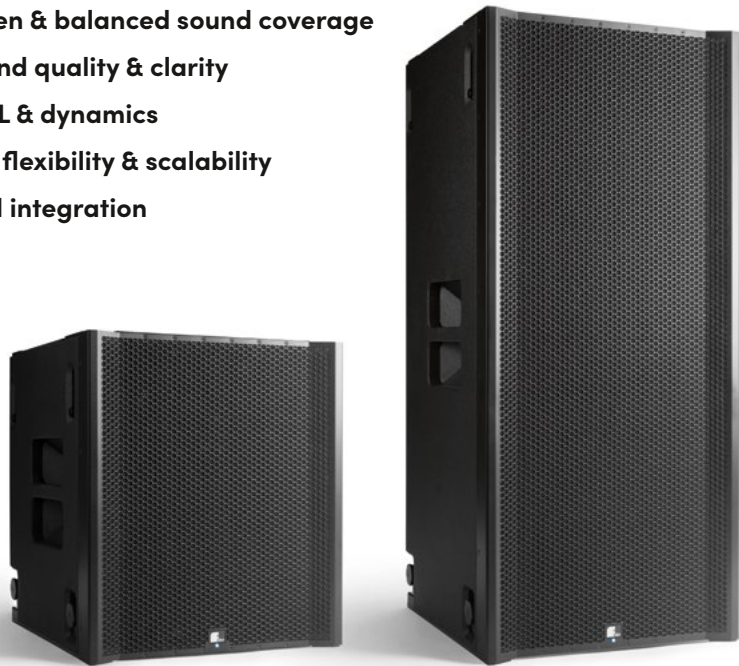
Focus Venue is a straight-flown, active, modular line array system specially designed for sound reinforcement in concert halls, stadia, arenas etc. This technical revolution has been masterminded by Fohhn, a beam steering and digital technology pioneer. Combined with the new PS-850 subwoofer driven by the DI-2.2000 amplifier, Focus Venue becomes the ideal concert sound system for a variety of challenges.



Focus Venue

A modular beam steering line array for concert sound

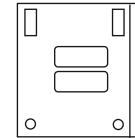
- Extremely even & balanced sound coverage
- Excellent sound quality & clarity
- Enormous SPL & dynamics
- Unparalleled flexibility & scalability
- Perfect visual integration



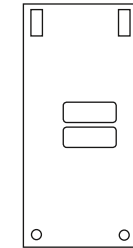
Focus Venue Modules & Accessories

FV-100

High-frequency module



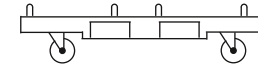
8 × 1" (1.75" diaphragm) compression driver
8 × 1.5" (4" diaphragm) compression driver
Manifold horn-loaded waveguide design
16 × 250 W CLASS D DSP amplifier
16 × DSP
Max. SPL: 150 dB



FV-200

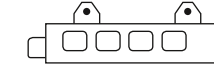
Low-mid module

8 × 10" long excursion woofer
Horn-loaded waveguide design
4 × 1000 W CLASS D DSP amplifier
4 × DSP
Cardioid Technology (CDT)
Max. SPL: 145 dB



Dolly Board

Safe transport for FV-100 and FV-200 modules.
The units can be directly connected to the dolly board via the built-in Fohhn Interlock System.



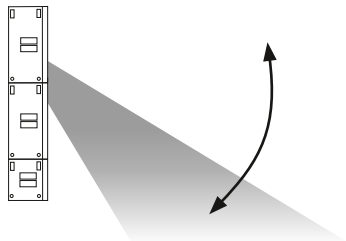
Flying Frame

Complies with the directives and provisions of DGUV Regulation 17.

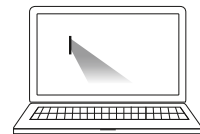
Additional Accessories

Stacking cradle, pull-back bar, extension bar, transport cover, single wheelboard.
Safe and quick handling guaranteed.

Beam Steering – no mechanical curving needed



The system is always flown or stacked straight.

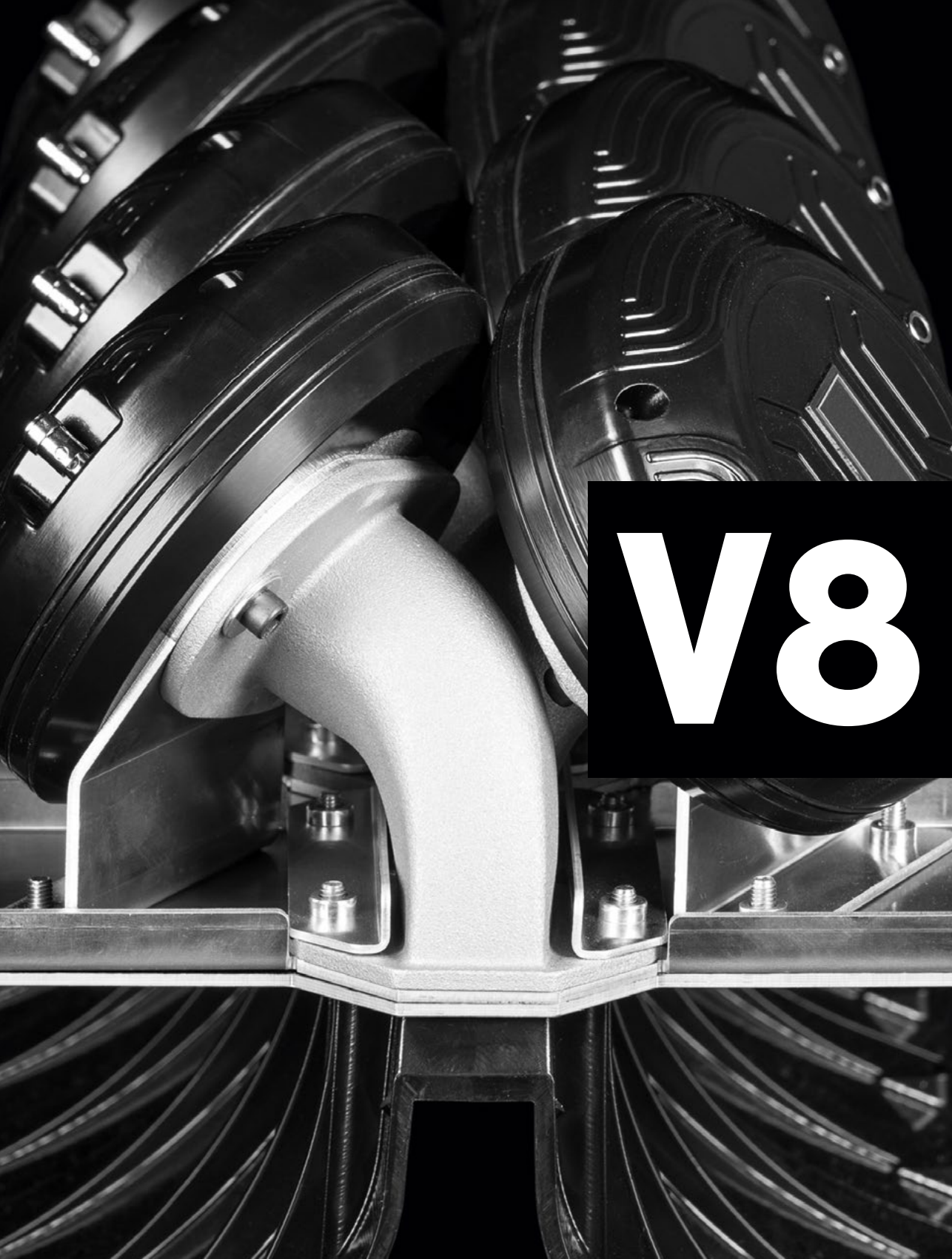


Sound beams are controlled in real time via Fohhn Audio Soft.



Fast and safe rigging with our Fohhn Interlock System

Discover a new generation of rigging hardware.
Simple, tool-free, safe and fast.
Significantly less time is spent on system setup.



Focus Venue

Superior technology leads to superior results

Focus Venue impressively combines state-of-the-art electronics with extraordinary acoustic design and a new generation of rigging hardware. This results in a high-performance sound system with top sound quality and unprecedented flexibility and scalability. Digital audio networking connectivity is ensured: Focus Venue comes with both AES/EBU- and AIREA inputs. Optionally available Input Interfaces allow for a connection to analog signal chains or digital audio networks such as Optocore or Dante™.

V8

The power of V8

Thanks to the close distance of Focus Venue's high-frequency drivers and its manifold horn-loaded Waveguide design, comb filter effects do not occur – these will occur, by definition, when using a conventional line array. Therefore, natural sound and great clarity can always be guaranteed.



Convertible
Dispersion
Technology

Rock the crowd – not the neighbours

Cardioid technology can effectively reduce (unwanted) low-mid rear sound emissions. Our patented Convertible Dispersion Technology (CDT) is integrated into every low-mid module. This allows a user to switch remotely between cardioid and vented operation.

Analog

AES/EBU

AIREA®

Dante™

 OPTOCORE

PS-850 subwoofer

The perfect low end for concert sound



PS-850
System subwoofer

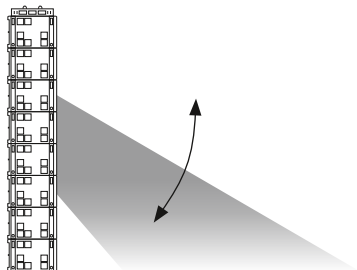
2 x 18" woofer, 2000 W
Non-turbulent port design, vented system
Cut-off frequency 27 Hz
Multiplex birch plywood enclosure, PU-coated
Optional flying equipment
Weight: 105 kg

- A high-performance subwoofer system
- Non-turbulent port design
- Retrofit Fohhn Interlock rigging system
- Additional Speakon inputs on the front for cardioid setups
- An entire set of accessories

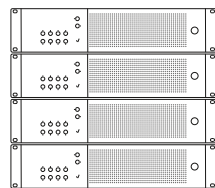
With the launch of our new PS-850 subwoofer, our Focus Venue concert sound system is powerfully complemented in the low-frequency range. By combining it with our new DI-2.2000 DI-Series amplifier and sophisticated accessories, a perfect integral system is formed.

Using Fohhn subwoofers powered by DI-Series system amplifiers allows for real-time control of a sub array's dispersion characteristics via Fohhn Audio Soft.

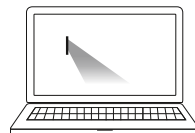
Beam Steering – Focus Sub Array



A passive PS-850 sub array is stacked or flown straight.

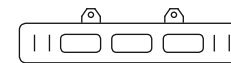


DI-2.2000 system amplifiers power and control the sub array



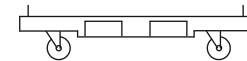
Sound beams are steered in real time via Fohhn Audio Soft.

PS-850 System subwoofer Accessories



Flying Frame

Complies with the directives and provisions of DGUV Regulation 17.



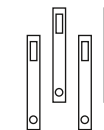
Dolly Board

Safe transport for up to 4 units, optional direct connection via built-in Fohhn Interlock System. Transport covers available.



Wheel Board

Safe transport of one unit, SmartLock mounting. Transport cover available.



Retrofit Fohhn Interlock System

Our simple and tool-free rigging system can be retrofitted to any non-flown PS-850 subwoofer.

DI-2.2000 system amplifier:
100 % performance.
100 % reliability.
100 % Fohhn.

High-performance amplification built to order:
Get the connection that meets your requirements.

Whenever you order a Fohhn DI-Series amplifier, you can always preconfigure its input- and output connections. Input options include AES/EBU (terminal block or XLR), Dante™, Optocore, Fohhn AIREA and Analog (XLR). For signal outputs, you can choose between terminal blocks or Speakon connectors.



DI-2.2000

System amplifier for PS-850

DSP-controlled CLASS D amplifier
 2 × 2000 W / 4 ohms
 2HU / 19"
 9.4 kg

- Up to 10 seconds of peak power*
- Designed for both mobile applications and fixed installations
- Networking, remote control and monitoring via Fohhn Audio Soft
- Extensive DSP input- and output processing
- Power supply that includes a microprocessor with various sensory functions – voltage current, temperature, humidity and power demand – to ensure optimal operation and device protection
- Universal 100-240 V AC power supply with Power Factor Correction (PFC)
- Auto power save function enabling fanless idle operation, temperature-controlled fans
- Two configurable switching contacts and a fault contact



* all channels full-range driven with pink noise (6 dB crest) into 4 ohms resistive load

Available Input Interfaces



AES/EBU (Phoenix 3-pin)



Analog



AES/EBU (XLR)



Optocore



Dante™

Available Output Interfaces



Speakon connectors

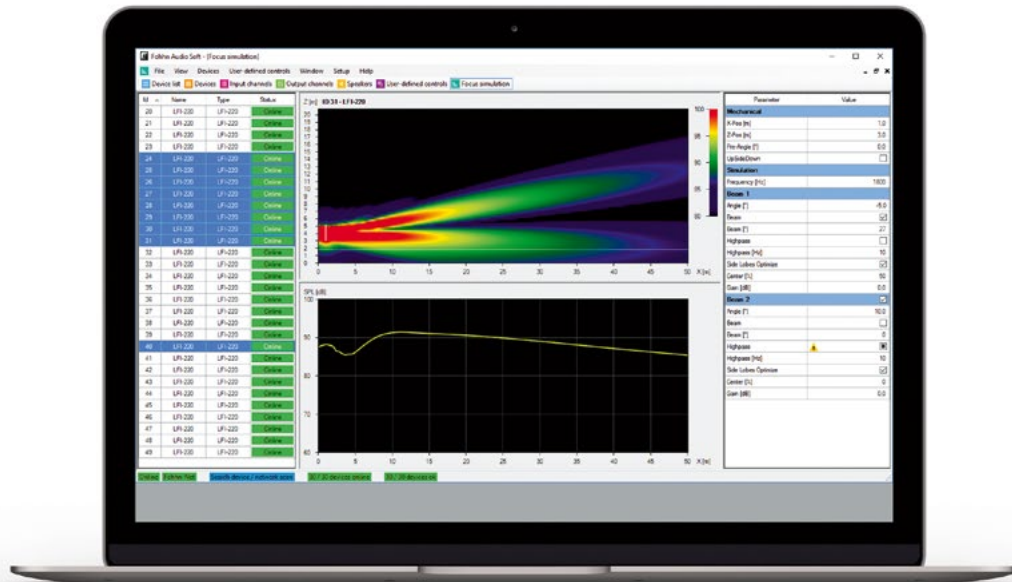


Phoenix 2-pin

One piece of software controls the entire system: Fohhn Audio Soft.

- **Direct and intuitive remote control of Fohhn systems in real time**
- **A clear graphical user interface gives speedy access to all connected audio devices, group functions, software presets and to the Focus Simulation.**
- **Devices can be controlled via PC using a Fohhn-Net USB- or Ethernet adapter.**
- **All settings can be saved as presets.**
- **Up to 254 devices can be networked and remotely controlled.**

State-of-the-art technology and dedicated software have been closely developed in tandem by our engineers and finely tuned for perfect compatibility. No other software program is required; everything is included in a single intuitive application - Fohhn Audio Soft. The advantages are obvious: No unnecessary waiting time while data is transferred between software programs, or computer processes are completed. Loudspeakers do not have to be muted at any time while settings are optimised. Both the software and loudspeaker systems are permanently online and in constant communication with one another. Every adjustment can be made in real time, guaranteeing problem-free live control of all connected Fohhn systems.



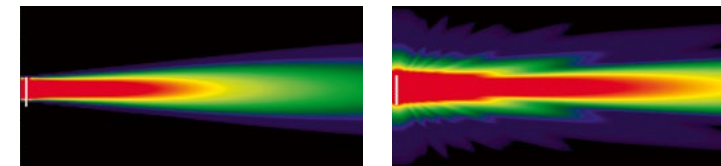
Beam Steering: Perfect control in real time.

Fohhn Audio Soft version 5.0 offers a comprehensive set of Beam Steering features:

- **Vertical dispersion: 0 – 90°**
- **Sound inclination angle: +/-40°**
- **Precise adjustment in 0.1° increments**
- **Two Beam Technology: two beams possible per module – each beam can be controlled separately.**
- **Side Lobe Free Technology: effective suppression of unwanted side lobes**
- **Moveable acoustic centre**
- **Asymmetric beams possible**
- **High-class audio tools like parametric EQs, Dynamics, X-Over etc.**

The result: Exceptionally even sound pressure levels and sound quality in every row. Fewer room reflections. More direct sound. Perfect intelligibility.

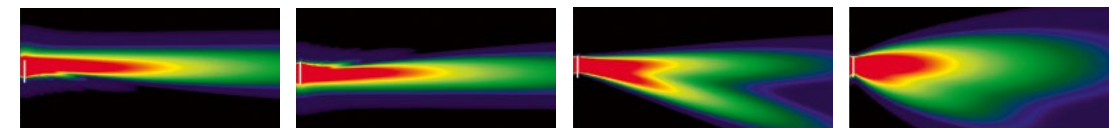
Side Lobe Free Technology



One beam – side lobe free

Beam with side lobes

Other Options



Acoustic centre at top

Acoustic centre at bottom

Two beams

Asymmetric beam

WELCOME TO THE SYSTEM

Focus Venue
straight line array

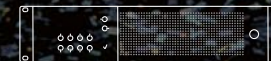


FV-100



FV-200

DI-Series System Amp
DSP-controlled amplifier



DI-2.2000

Subwoofer
Flyable 2 x 18" subwoofer



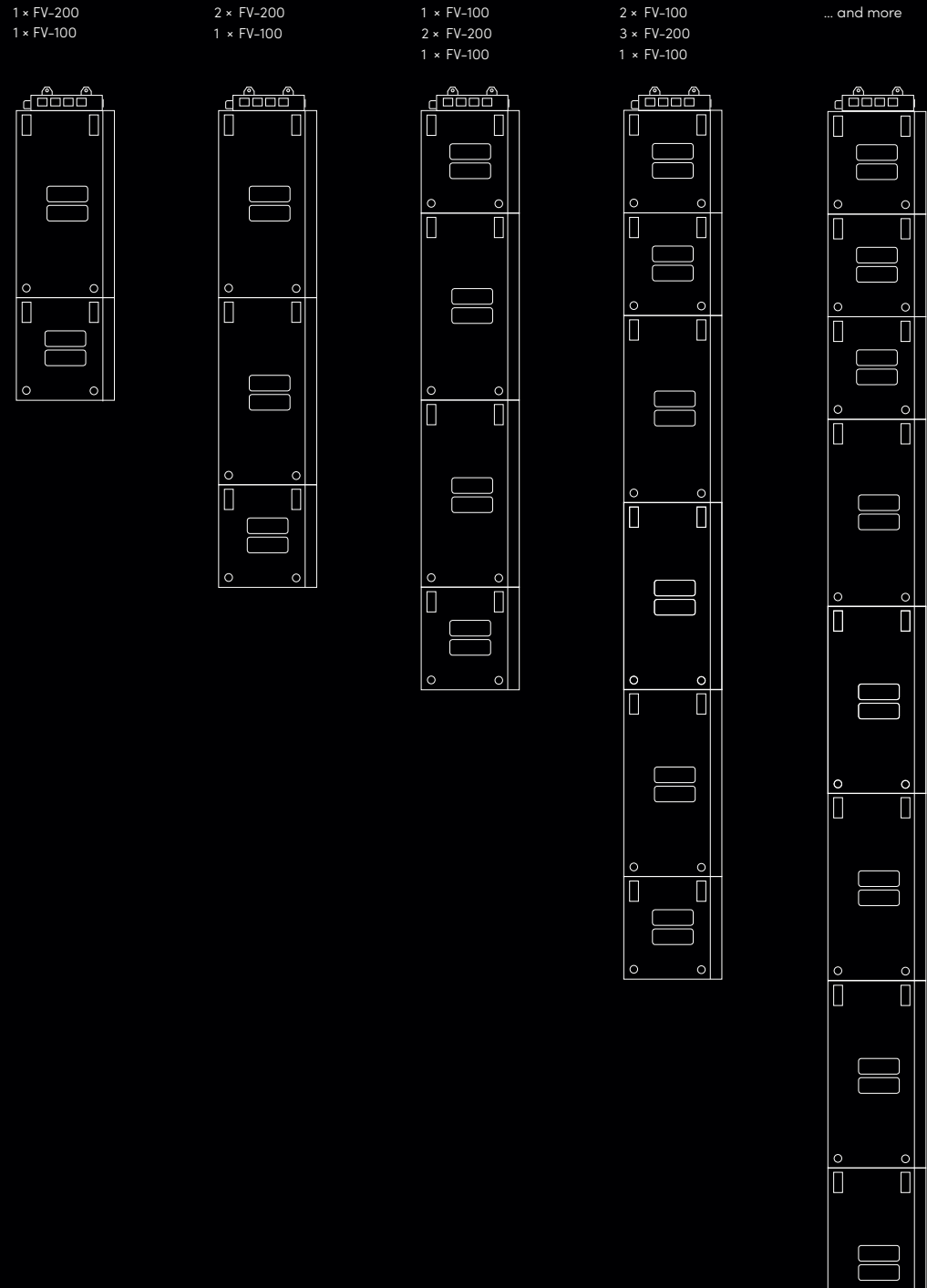
PS-850



Fohhn Audio Soft
real-time control of the entire system

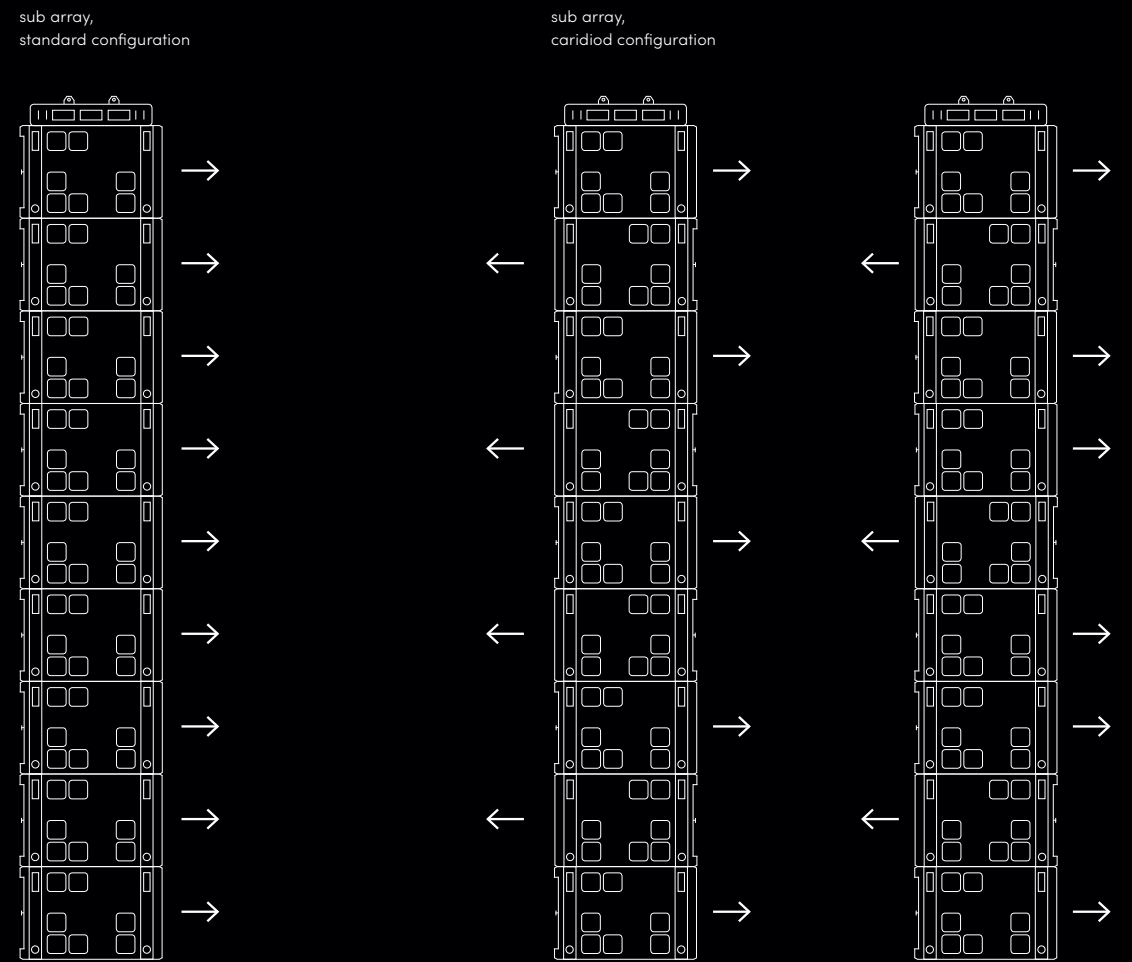
Focus Venue

Standard module combinations



PS-850

Standard or cardioid configuration

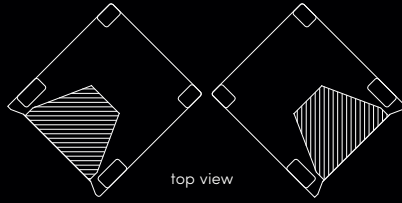


The PS-850 can also be used in a cardioid setup.
Integrated Speakon connectors at the front grille for simplified cabling.

Application examples

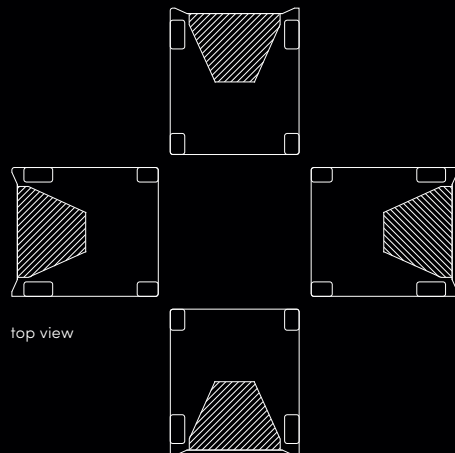
180° sound reinforcement

Sound systems flown side by side in the tightest of spaces, since mechanical curving is not applied.



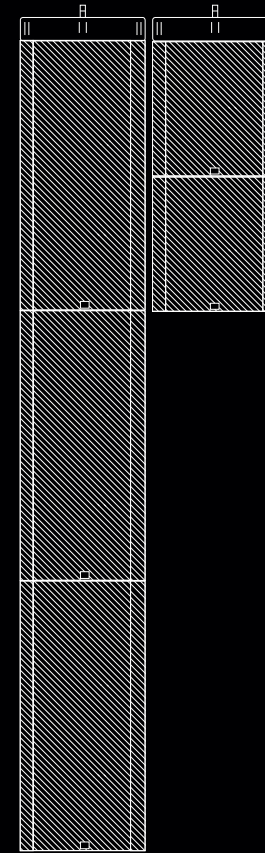
360° sound reinforcement

360° sound reinforcement in the tightest of spaces, since mechanical curving is not applied.



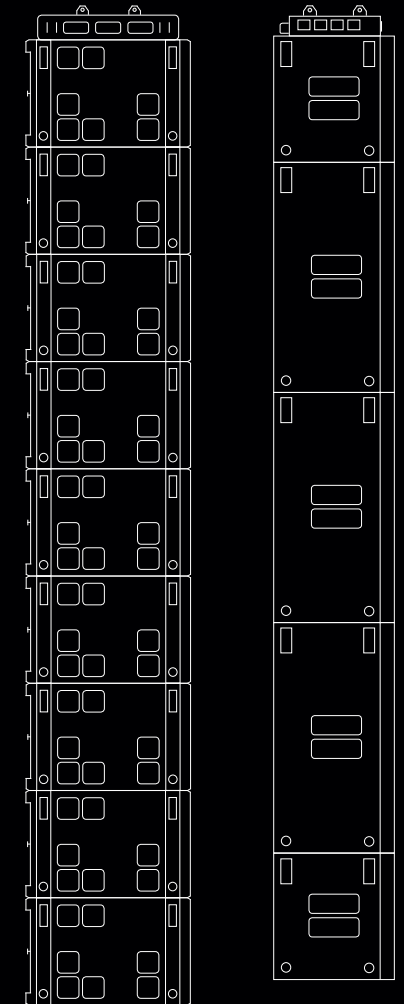
Loving neighbours – side by side

Due to a crossover slope of 48db/Oct, the HF- and LF modules can be flown or installed side by side without any interference occurring.



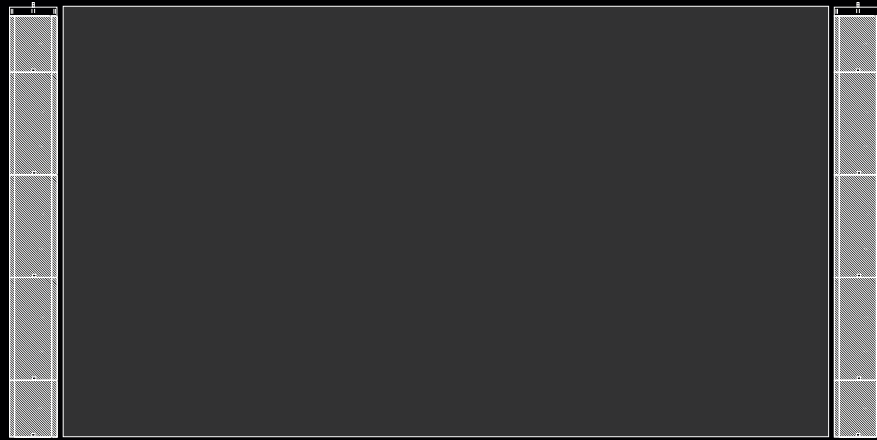
Full-range beam steering including sub array

Mechanical and optical compatibility of Focus Venue and Perform-Series subwoofers, full beam steering performance across the entire frequency range.



A sound system integrated into LED walls

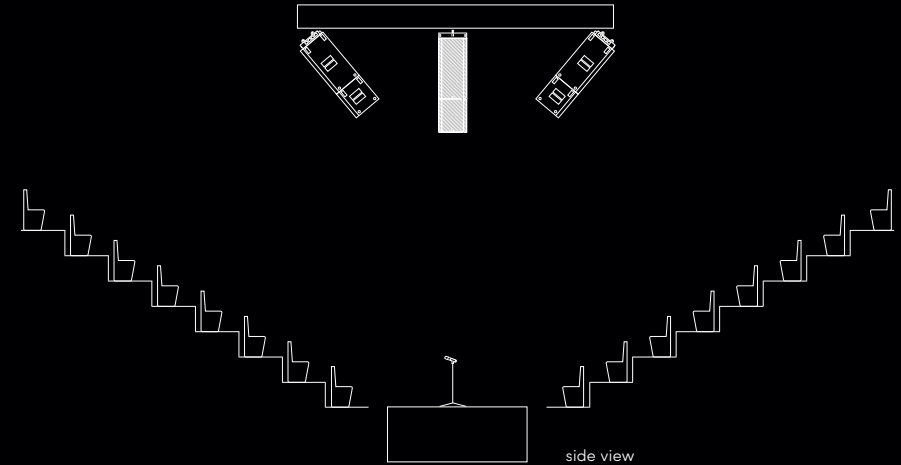
Seamless integration without mechanical curving, no interference with visual axes, minimal space requirement.



front view

Mechanical pre-tilting possible

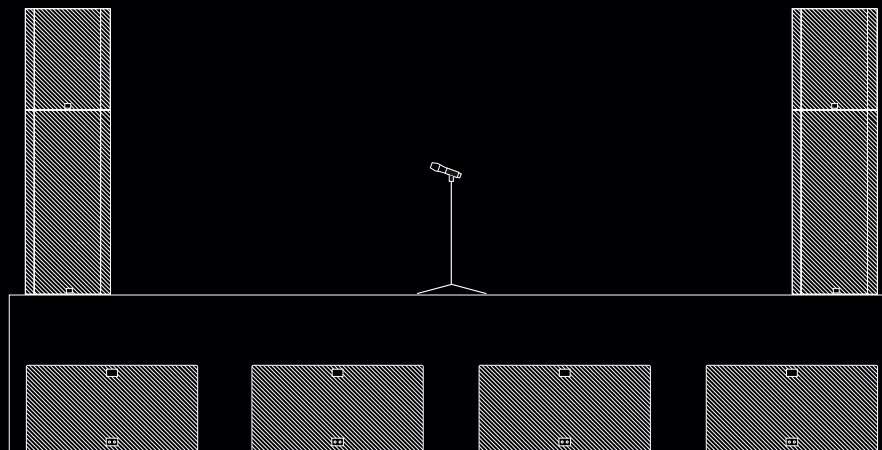
Beam steering and mechanical pre-tilting of up to 40° guarantee perfect sound dispersion for every application. The integrated tilting sensor displays the actual angles.



side view

Stack your PA

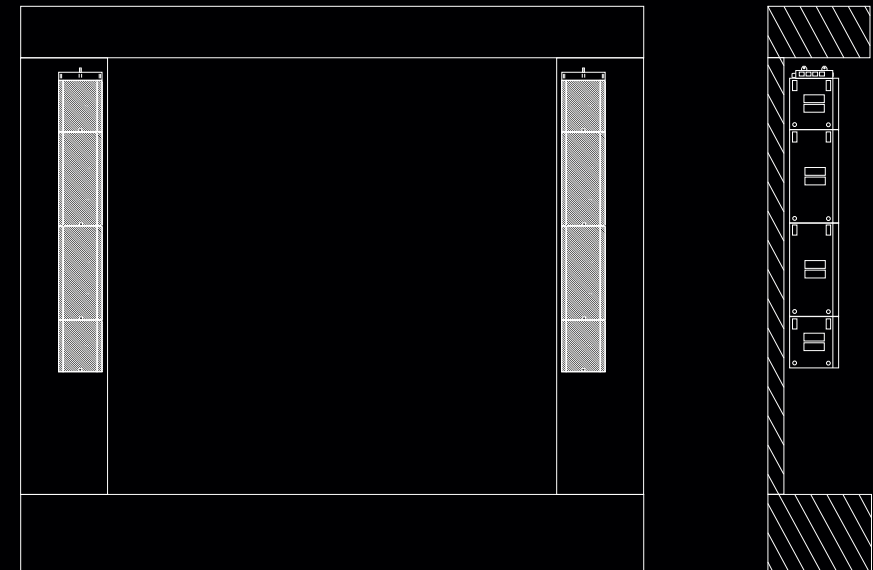
You can also stack your entire system. An optional stacking cradle for Focus Venue arrays will be available soon.



front view

Seamless integration

Since they are flown straight, all of our systems can be integrated easily and almost invisibly.



front view

side view



Anastacia's straight line array

E-Werk, Cologne, Germany
Anastacia's "Music Loves Fashion" event

EQUIPMENT USED

4 x Focus Venue FV-100
4 x Focus Venue FV-200
9 x PS-9 active subwoofer
4 x PT-70 as near fills

“ Focus Venue combines the sound and performance of a traditional line array with the flexibility and precision of a vertical beam steering system. The side-lobe-free mode and the cardioid technology allow previously unavailable control of your sound and thanks to the scalability of Focus Venue, it's always the perfect system whether you're playing in a club or an arena. ”

Chris Madden (FOH sound engineer, Pink, Anastacia, Sade)





Germany's modular line array

Rhine Bank, Mainz, Germany
German Unit Day celebrations

EQUIPMENT USED

6 × Focus Venue FV-100
8 × Focus Venue FV-200
3 × Focus Modular FM-400
2 × Focus Modular FM-100



Dresden's precise sound reinforcement

Elbe Bank, Dresden, Germany
"Filmnächte am Elbufer" open-air event

EQUIPMENT USED

6 × Focus Venue FV-200
3 × Focus Venue FV-100
4 × PS-9 active subwoofer



Bergamo's easy rigging experience

Creberg Theatre, Bergamo, Italy
Concerto delle Stelle

EQUIPMENT USED

2 × Focus Venue FV-100
2 × Focus Venue FV-200
6 × PS-9 active subwoofer
8 × XM-4 stage monitors



“ I chose Focus Venue because it is the
future of the Line Array. “

Angelo Pelliccioli Sound Service, Italy

Technical Data

FV-100

ELECTROACOUSTIC FEATURES

Acoustic design	electronically steerable high frequency line array speaker, manifold horn-loaded waveguide design
Components	8 × 1" (1.75" diaphragm) compression driver 8 × 1.5" (4" diaphragm) compression driver
Operational mode	2-way active, 16 × DSP amplifiers, Class D
Max. SPL (1 m)	150 dB
Frequency range	800 Hz – 20 kHz
Beam dispersion angle, horizontal	90°
Vertical beam width, digitally controlled	0° to +90° in 0.1° increments
Vertical inclination angle, digitally controlled	-40° to +40° in 0.1° increments
Acoustic centre	moveable between 0 – 100 % (from speaker bottom to top)

LOUDSPEAKER FEATURES

Enclosure	multiplex birch plywood
Protection grille	steel, powder-coated
Dimensions (W × H × D)	approx. 560 × 635 × 595 mm
Weight	approx. 107 kg

ELECTRONIC FEATURES

Amplifier power	16 × 250 W
Amplifier type	Pure Path Digital PWM
DSP channels	16
Frequency response	20 Hz – 20 kHz
Signal/Noise ratio	> 105 dB/A
Protective circuit	softstart, overheating, short circuit, overload
Power supply	100 V – 240 V AC, 50/60 Hz switching power supply with Power Factor Correction (PFC), inrush current limiter, power-up delay

AUDIO SIGNAL INPUTS

Digital audio inputs	1 × AES/EBU or 1 × AIREA powered
Input processing	yes, 2 × DSP

REMOTE CONTROL, REMOTE MONITORING

Remote control	Fohhn-Net over RS-485, Fohhn Audio Soft
Remote monitoring	Temperature, Protect, AES/EBU Signals, Power Supply, Fohhn-Net, Fohhn Audio Soft, Tilt Sensor

FV-200

ELECTROACOUSTIC FEATURES

Acoustic design	electronically steerable low-mid line array speaker, horn-loaded waveguide design, Cardioid Technology (Fohhn CDT)
Components	8 × 10" long excursion driver
Operational mode	active, 4 × DSP amplifiers, Class D
Max. SPL (1 m)	145 dB
Frequency range	60 Hz – 800 Hz
Beam dispersion angle, horizontal	90°
Vertical beam width, digitally controlled	0° to +90° in 0.1° increments
Vertical inclination angle, digitally controlled	-40° to +40° in 0.1° increments
Acoustic centre	moveable between 0 – 100 % (from speaker bottom to top)

LOUDSPEAKER FEATURES

Enclosure	multiplex birch plywood
Protection grille	steel, powder-coated
Dimensions (W × H × D)	approx. 560 × 1275 × 595 mm
Weight	approx. 135 kg

ELECTRONIC FEATURES

Amplifier power	4 × 1000 W
Amplifier type	Pure Path Digital PWM
DSP channels	4
Frequency response	20 Hz – 20 kHz
Signal/Noise ratio	> 105 dB/A
Protective circuit	softstart, overheating, short circuit, overload
Power supply	100 V – 240 V AC, 50/60 Hz switching power supply with Power Factor Correction (PFC), inrush current limiter, power-up delay

AUDIO SIGNAL INPUTS

Digital audio inputs	1 × AES/EBU or 1 × AIREA powered
Input processing	yes, 2 × DSP

REMOTE CONTROL, REMOTE MONITORING

Remote control	Fohhn-Net over RS-485, Fohhn Audio Soft
Remote monitoring	Temperature, Protect, AES/EBU Signals, Power Supply, Fohhn-Net, Fohhn Audio Soft, Tilt Sensor

Technical Data

DI-2.2000

ELECTRONIC FEATURES

Amplifier technology	Class D
Output power	2 × 2000 W / 4 ohms 2 × 1000 W / 8 ohms
Minimum impedance	4 ohms
DSP input channels, Fohhn Audio DSP	4
Amplifier outputs	2
Frequency response	20 Hz - 20 kHz
S/N ratio	>100 dB/A
THD+N	0.08% ^[1]
Dynamic range	>120 dB, A-weighted 20 Hz - 20 kHz
Protective circuit	Over voltage protection, over current protection, over temperature protection short-circuit protection, DC protection, power on delay, soft start and inrush current limit, humidity sensing
Remote control	Fohhn-Net, Fohhn Audio Soft
Remote monitoring	Temperature, protect, signals
Power supply	100 - 240 V AC 50/60 Hz, universal input switching power supply with Power Factor Correction (PFC)
Temperature range	0 - 45°C
Controls	Power on/off switch Fault contacts: 1 × Phoenix 3-pin (open/close), 1 × Phoenix 3-pin (switch contact 1/2) Remote Power: 2 × Phoenix 2-pin (on/off)
Auxiliary supply 24 V / 5 W	1 × Phoenix 2-pin

MECHANICAL FEATURES

Cooling	Temperature-controlled fan
Weight	9.4 kg
Dimensions (W × H × D)	2HU / 19", 485 × 89 × 425 mm
Display (front)	1 × receive LED, 1 × send LED, 1 × power LED, 1 × protect/error LED, 4 × input LED, 2 × output LED

AUDIO SIGNAL INPUTS/ OUTPUTS

Audio inputs	2 × Phoenix 3-pin AES/EBU, 1 × Phoenix 3-pin Fohhn-Net
Optional input interfaces	AES/EBU XLR, Analog XLR, Dante, Optocore
Audio outputs	2 × Phoenix 2-pin
Optional output interface	2 × Speakon

[1] (1 kHz, 8 ohms, 3 dB below clipping)

PS-850

ELECTROACOUSTIC FEATURES

Acoustic design	Direct radiating, vented design, NTP (non-turbulent port design)
Components	2 × 18" long excursion driver, 4.5" voice coil, water-resistant cones
Power rating (nominal) ^[1]	2000 W
Max. SPL ^[2]	142 dB
Cut-off frequency ^[3]	27 Hz
Nominal impedance	4 ohms

MECHANICAL FEATURES

Enclosure	Multiplex birch plywood
Protection grille	Hexagonal perforated steel grille Powder-coated in enclosure colour Backed by acoustically transparent foam
Fittings	1 × M20 thread for distance rod 4 × slot for Interlock rigging system 2 × catch for optional front panel
Connections	Rear: 2 × Neutrik NL4 Speakon, recessed Front: 2 × Neutrik NL4 Speakon for cardioid setups
Finish	Scratch-proof polyurethane coating, black
Dimensions (W × H × D)	1200 × 600 × 900mm
Weight ^[4]	110/105 kg with/without FIS
Wheels	2 × fitting for optional wheel board
Handles	4 handles on each side
Miscellaneous	2 × rubber skid on bottom, 2 × matching slot on top 4 × rubber foot on each side 1 × fitting for cable strain relief on rear panel

OPTIONAL FEATURES

Weather protection	Polyurethane coating with additional UV-resistant finish, additional water-repellant speaker cone impregnation
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[1] According to IEC-60268-5 long term

[2] Peak, 20 ms with bandpass filtered pink noise signal according to IEC

[3] -10 dB under anechoic half-space conditions with speaker preset

[4] Net weight without optional equipment

Made in Germany. Made by Fohhn.

The entire Fohhn product range is developed and manufactured by our team in Nürtingen, Germany.

- GERMAN QUALITY
- ENGINEERED AND MADE
- BY FOHNN®

FOHNN.
SOUNDS PERFECT.
IS PERFECT.

Thank you for being
with us for the last

25
years

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