

18 PT 1000 SUB

SWETON®



18 PT 1000 SUB is a precision-engineered 18-inch sub bass transducer designed to deliver powerful low-end performance with clarity and control. With a 4-inch voice coil, AES power handling of 1000 watts, and a sensitivity of 95 dB (1W/1m), this driver is optimized for demanding subwoofer applications in touring systems, fixed installations, and high-impact outdoor setups. Built using a high-efficiency motor system with a strong BL factor of 25.83 N/A and a motor efficiency index (Bl^2/Re) of 108.59 Ns/m, this speaker ensures tight control over cone movement even at high excursion levels.

At its core, the driver exhibits a resonant frequency (F_s) of 43 Hz, making it capable of reproducing clean and deep bass without excessive EQ compensation. The total Q factor (Q_{ts}) of 0.53 and a moving mass (M_{ms}) of 222.5 grams confirm its optimized behaviour for vented enclosures.

Whether deployed in DJ sound systems, touring rigs, auditorium installs, or event venues, the 18 PT 1000 SUB stands out with its balance of power, efficiency, and sound quality. With components tested and validated through the Klippel Analyzer System, this subwoofer driver guarantees performance that meets professional audio standards — making it not just another driver, but a foundation of thunderous, emotional bass reproduction.

Enclosure Recommendation (Vented):

Type	Volume	Tuning Frequency	Port Details
Bass Reflex	120–140 L	40 Hz	6" diameter, 220 mm long (round flared port)

🔗 Optimized for punchy and deep bass with minimized group delay.

Recommended Crossover Settings:

Driver	Crossover Type	Frequency	Slope
18 PT 1000 SUB	Low Pass	100–150 Hz	24 dB/oct LR
HF Compression Driver	High Pass	1.6–1.8 kHz	24 dB/oct LR

Gap ensures no unwanted overlap and phase issues between LF and HF sections.

Recommended HF Driver Pairing

Parameter	Recommendation
Power Handling	80–100W AES
Sensitivity	108–112 dB SPL
Type	Titanium Diaphragm Compression Driver
Throat Size	1.4" preferred for better coverage

Applications:

- Professional PA Subwoofer Systems
- Roadshows, Processions, and Outdoor DJ
- Fixed installations in auditoriums & banquet halls
- High SPL Club Systems & Stage Monitors (mid-bass)

Why Choose SWETON 18 PT 1000 SUB?

- $Bl^2/Re = 108.59$ Ns/m — indicating a strong, efficient motor for high damping and control
- High X_{max} (± 6.27 mm) allows deep, distortion-free excursions
- Large S_d (1225.42 cm²) gives it immense air-moving capability
- Low F_s of 43 Hz ensures deep bass reproduction even without extreme EQ
- Backed by Klippel-certified performance & reliability.

SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	465 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	1000 W
Program Power	2000 W
Sensitivity (1W/1m)	95 dB
Frequency Range	45-1000 Hz
Magnet Material	Ferrite
Voice Coil Diameter	99.3 mm (4 in)
Winding Material	COPPER
Former Material	GLASS FIBRE
Winding Type	In/Out

Mounting Info

Overall Diameter	465 mm
Bolt Circle Diameter	448 mm
Baffle Cutout Diameter	423 mm
Depth	198 mm
Flange and Gasket Thickness	20 mm
Gross Weight	17 Kgs

Parameters

Resonant Frequency	Fs	43 Hz
DC Resistance	Re	6.14 Ω
Electrical Q	Qes	0.55
Mechanical Q	Qms	14.92
Total Q	Qts	0.53
Compliance Equivalent Volume	Vas	131.69 Ltrs
Peak Diaphragm Displacement Volume	Vd	0.77 Ltrs
Effective Surface Area of Cone	Sd	1225.42 cm ²
Reference Efficiency	η_0	1.79%
Moving Mass including air load	Mms	222.50 gms
Motor Strength	Bl	25.83 T-m
Voice Coil Inductance	Le	1.34 mH
Efficiency Bandwidth Product	EBP	78 Hz
Voice Coil Overhang	Xmax	± 6.27 mm

Recone Kit

Recone Kit Number	REC18PT1000SUB
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Z(f,x=0) Impedance

