

# 15 PA 500 MB

**SWETON®**



The 15 PA 500 MB is a premium-grade 15-inch mid-bass transducer, built with a powerful 4-inch voice coil and optimized using Klippel Analyzer Systems. Designed for high-output mid-bass performance, it excels in clarity, punch, and dynamic headroom, making it a versatile choice for a wide range of sound reinforcement applications.

Its motor strength (BL = 18.94 N/A) and precision-controlled suspension ensure accurate reproduction of fast transients and deep kick notes. With a frequency response of ~45 Hz to 4.5 kHz, it effortlessly handles both low-end warmth and upper midrange vocal clarity. The sensitivity of ~95 dB SPL (1W/1m) ensures loud output even with modest amplification, and the reference efficiency of 1.79% speaks of its output-to-power ratio efficiency.

Importantly, this driver also performs excellently in monitor applications. Its natural midrange tone, fast transient response, and wide dispersion make it suitable for use in stage monitors, drum fills, and side fills—especially when space and output demands coexist. When paired with an appropriate HF compression driver and crossover, it becomes a complete solution for full-range wedge monitors.

## Recommended Enclosure Design

Type	Volume (Net)	Port Size (Dia × Length)	Tuning Frequency
Vented	80–90 litres	Ø100 mm × 110 mm	~50–55 Hz
Reflex			
Compact	65–70 litres	Ø100 mm × 150 mm	~58–60 Hz
Reflex			
Floor	65–70 litres	Angled reflex	~55 Hz
Monitor Use		wedge cabinet	

## HF Driver & Crossover Recommendation:

Parameter	Recommendation
HF Power Rating	80–100W AES
HF Sensitivity	105–110 dB SPL
HF Exit Size	1.4 inch preferred
Diaphragm Type	Titanium or Polymer
LPF for Woofer	3.0 – 3.5 kHz (12 dB/oct)
HPF for HF	1.5 – 1.7 kHz (12–18 dB/oct)

## Applications

- Touring and installed Public Address systems
- High SPL DJ setups
- Side fills and drum fills in live stages
- Vocal and instrument stage monitors (when used with HF driver)
- Outdoor event reinforcement with strong mid-bass focus
- Ideal for reflex-loaded cabinets or wedge enclosures

## Why Choose 15 PA 500 MB?

- Designed using Klippel R&D and laser-calibrated measurements
- Powerful yet controlled mid-bass response for high SPL environments
- Flexible usage — equally suited for FOH systems and monitor wedges
- Reliable mechanical and thermal stability with 4-inch coil
- Smooth frequency response up to 4.5 kHz ensures excellent HF integration
- Large Vd and Xmax for clean output

## SPECIFICATIONS & PARAMETERS

### Specifications

Nominal Diameter	395 mm
Nominal Impedance	8 $\Omega$
Nominal Power Handling (AES)	500 W
Program Power	1000 W
Sensitivity (1W/1m)	95 dB
Frequency Range	45-4500 Hz
Magnet Material	Ferrite
Voice Coil Diameter	99.3 mm ( 4 in)
Winding Material	CCAW
Former Material	GLASS FIBRE
Winding Type	OUTSIDE

### Mounting Info

Overall Diameter	395 mm
Bolt Circle Diameter	380 mm
Baffle Cutout Diameter	361 mm
Depth	155 mm
Flange and Gasket Thickness	16 mm
Gross Weight	14.20 Kgs

### Parameters

Resonant Frequency	Fs	51 Hz
DC Resistance	Re	5.8 $\Omega$
Electrical Q	Qes	0.64
Mechanical Q	Qms	21.87
Total Q	Qts	0.62
Compliance Equivalent Volume	Vas	89.25 ltrs
Peak Diaphragm Displacement Volume	Vd	1.31 Ltrs
Effective Surface Area of Cone	Sd	897.27 cm <sup>2</sup>
Reference Efficiency	$\eta_0$	1.79%
Moving Mass including air load	Mms	123.10 gms
Motor Strength	Bl	18.94 T-m
Voice Coil Inductance	Le	0.59 mH
Efficiency Bandwidth Product	EBP	80 Hz
Voice Coil Overhang	Xmax	$\pm 3.75$ mm

### Recone Kit

Recone Kit Number	REC15PA500MB
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Z(f,x=0) Impedance

