

## New Features in FINE Motor 2019™

FINEBox, FINE X-over, FINE DSP and FINE R+D 2019 features on page 2 and following

- Twin / Bifilar +Multi-layer Voice Coils
- Twin/ Bifilar Voice Coils: Former in Inside / Center / Outside
- Variable Backplate thickness with BL and sensitivity calculations
- BLx curves with 82%, 70% and 50% Xmax limits

**Voice Coil**

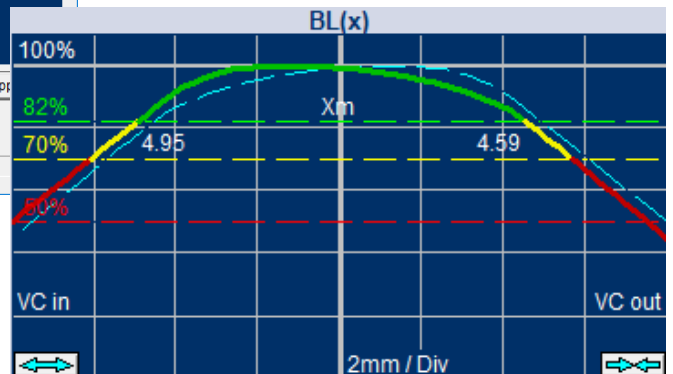
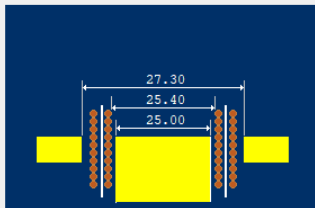
Wire Type	Round wire
Wire Material	Copper
Former Material	Aluminium

Note: Changing former material will adjust Qms

Voice Coil Resistance DCR	Re	3.20	Ohms
Voice Coil Inside Diameter	VCID	25.40	mm

Number of Layers	n	2	↑ ↓
Bifilar (Twin / Dual) Coil		2    2	
Voice Coil Former Position	Inside	Middle <input checked="" type="checkbox"/>	Outside <input type="checkbox"/>
Voice Coil Former Thickness		0.050	mm
Wire Stretch		0.00	%



Pole ID		10	mm
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**Bottom Plate**

Min Bottom Plate Thickness (Recommended)		5.2	mm
Min Bottom Plate OD		60.0	mm
Specify Base Plate Thickness	<input checked="" type="checkbox"/>	4	mm

Edit Main Magnet Dimensions

Flux adjustment will be a factor of 98.0%

SPL and BI adjustment will be -0.18dB

Rectangular

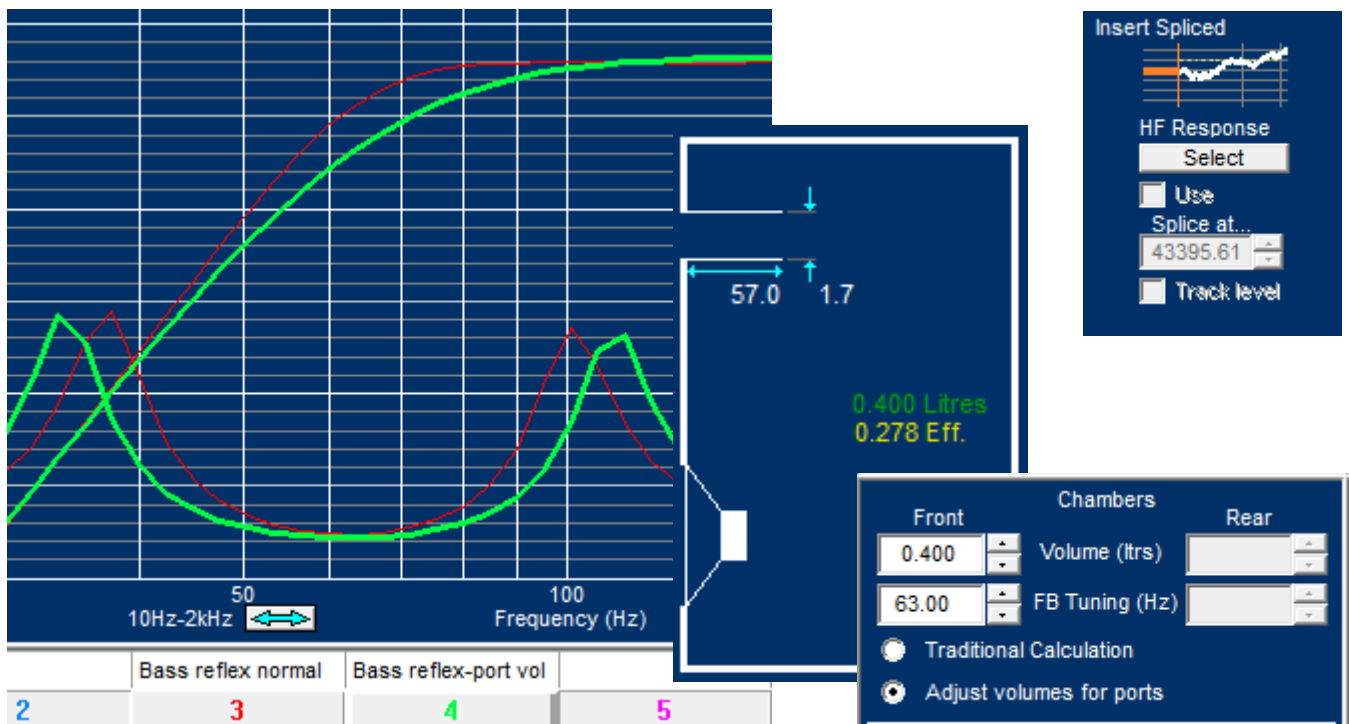
Motor Parts

Pole Adjustment Extension

2.10

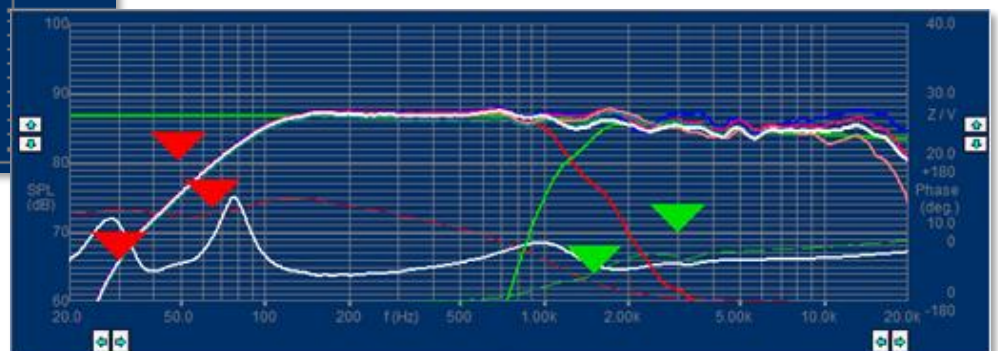
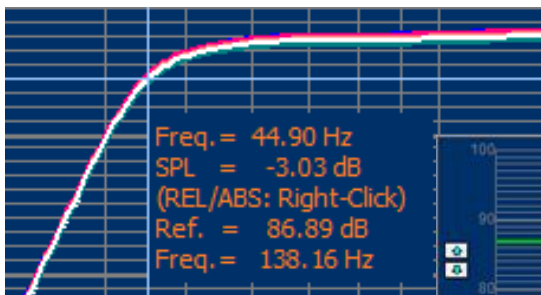
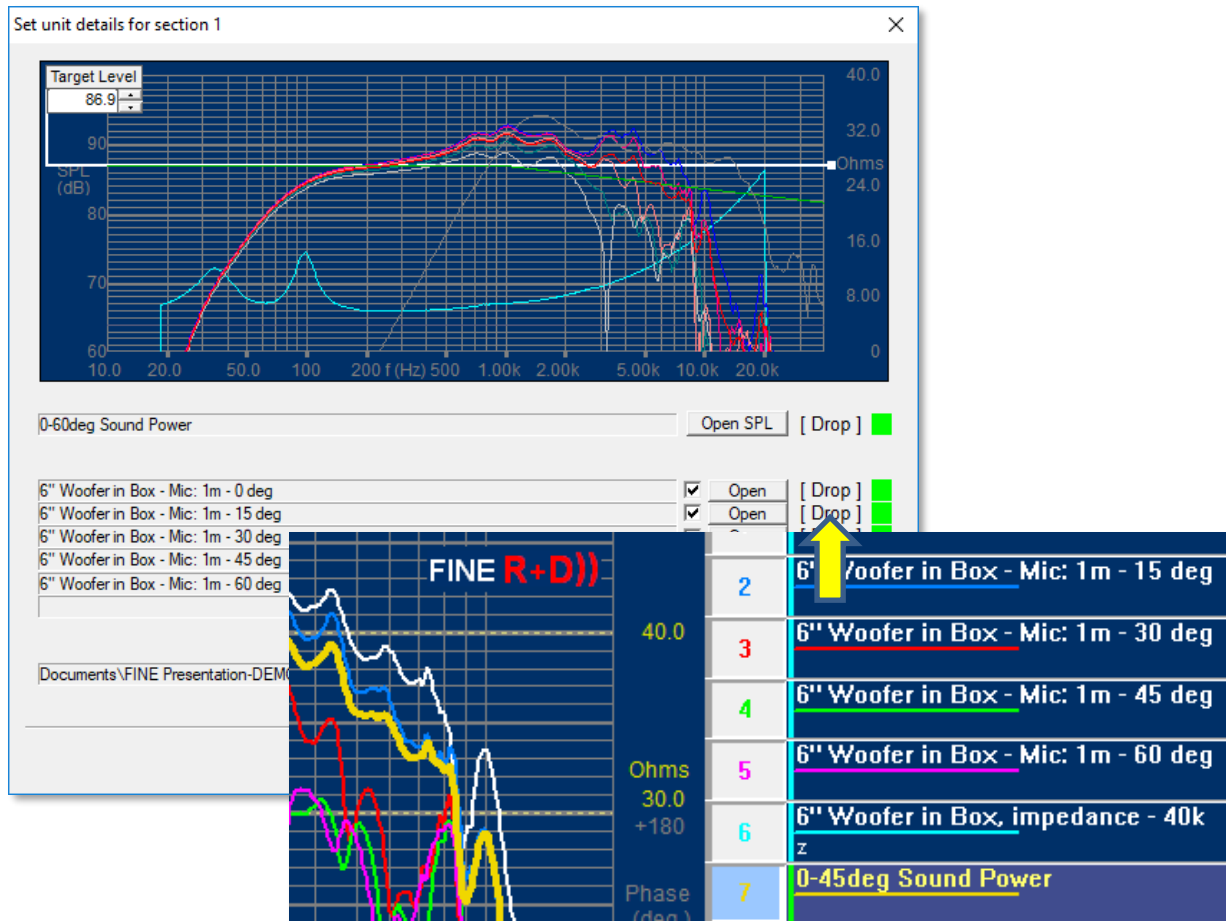
# New Features in FINEBox™ 2019

- Bass Reflex adjusted for Port Volume (= Net volume)
- Save and Load generic TS parameter files in txt format
- Improved splicing of High Frequency responses
- User defined Labels for all simulations
- Export of responses including Woofer in Bass Reflex
- For Windows 7, 8 and 10 (+64bit)



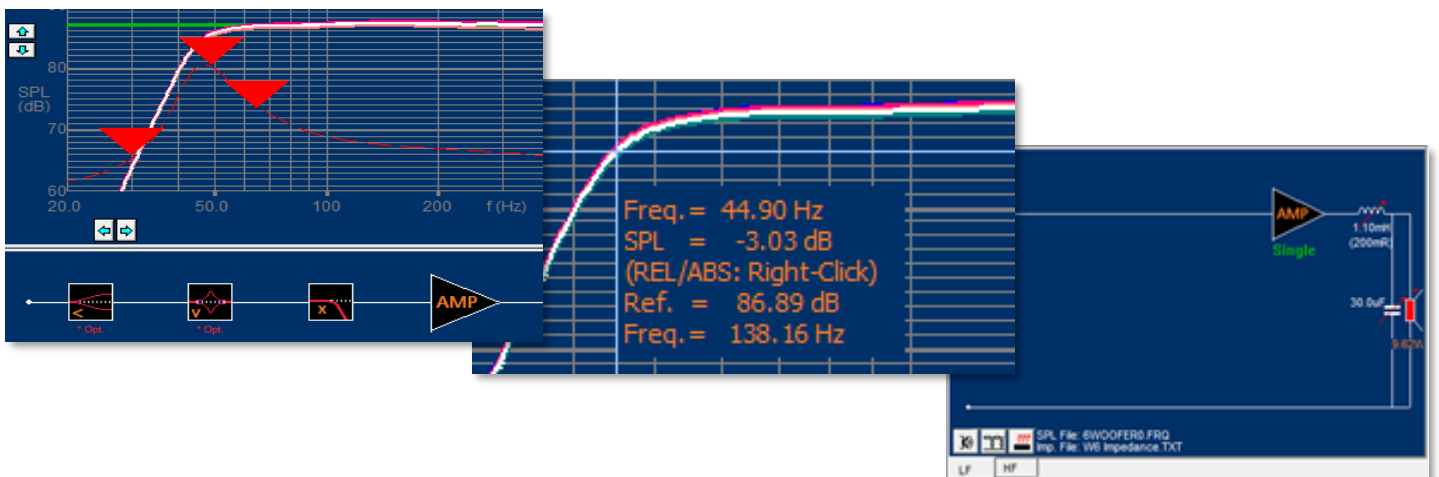
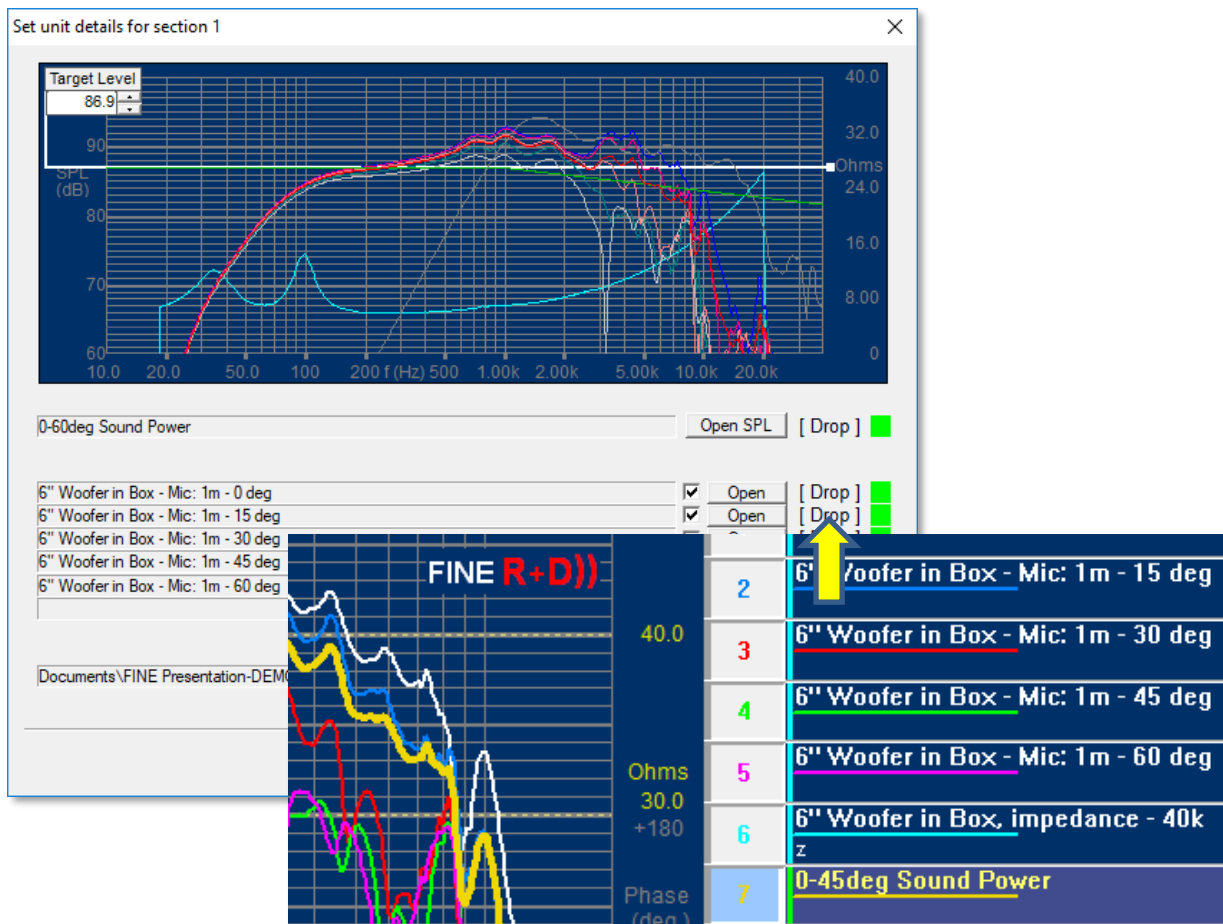
# New Features in FINE X-over 2019 <sup>TM</sup>

- Cursor with both absolute and difference (dB) calculations
- Unit Drive Voltage curves with max SPL points
- Now works with Sound Power responses from FINE R+D
- Drag & Drop responses with phase directly from FINE R+D



# New Features in FINE DSP 2019™

- Cursor with both absolute and difference (dB) calculations
- Upgraded Unit Drive Voltage curves with max SPL points
- Now works with Sound Power responses from FINE R+D
- Drag & Drop responses with phase directly from FINE R+D
- Upgraded Hybrid/Single Amp cross-overs with optimized passive components +DSP



# New Features in FINE R+D)))™ 2019

- Sample Rates: **48, 96 and 192 kHz**
- SPL and Impedance measurements up to ~100 kHz.
- High accuracy impedance measurements: LO (Low current), HI (High current)
- Bluetooth measurements with Delay compensation
- Bluetooth Pairing using Windows drivers
- GRAS and LOUDSOFT (DPA) microphones connect directly without extra preamplifiers
  - Fast USB-2 Hardware:
  - 3 Microphone input channels with selectable 48V Phantom power
  - Main amplifier 25W, balanced
  - XLR balanced Line Out
  - Built-in power supply
  - Factory calibrated.

