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# Reason-X

## 3-way PA

- ✓ 12" and 15" full range 3-way models
- ✓ All new Z38 PE HF Compression drivers
- ✓ 8.0" mid range
- ✓ 3.0" LF coils with  $\phi$ 190 mm ferrite magnets
- ✓ 2 models of 18" Sub-sub-woofers
- ✓ NOMEX subwoofer spiders
- ✓ Premium baltic birch construction
- ✓ Dust proof foam behind front grilles

Reason-X18B



Reason-X12



Reason-X218B



Reason-X15

# Reasons to be cheerful, 1-2-3....

## A NEW THREE-WAY SYSTEM - with matching subs.

Built exclusively to deliver incredible sonic definition at high volumes, Reason-X series brings new concepts and new qualities to become the premium pro audio loudspeaker series in the Wharfedale Pro portfolio.

The full range models (X12 and X15) feature an all-new Polyethylene flat diaphragm neodymium HF. This highly engineered Z38 HF compression driver brings extreme HF clarity. Enormous cooling fins disperse the heat generated and the unique 1.5 inch ringshaped polyethylene flat diaphragm delivers a precious feeling of space and air to high frequencies.

The 100° x 70° waveguide is also rotatable, making Reason-X suitable for high quality installations and touring.

The mid-range comes from a custom Wharfedale Pro 8" driver with an aluminium basket and ferrite magnet and it delivers a warmth and clarity. Meanwhile, the LF driver boasts a 3.0" voice coil and large  $\phi$ 190mm ferrite magnet. This 3-way combination gives the Reason series full range models a frequency response and audio definition that simply has to be experienced.

The series is completed by 2 subwoofers. A single 18" and a floor destroying 148 dB Max SPL dual 18". New LF drivers have been created which feature NOMEX spiders for extreme suspension and durability. 4.0" voice coils and a newly designed aluminium basket make these LF transducers impossible to describe in words - they need listening to instead!

All models are constructed of premium baltic birch and use thick steel front grilles for extreme durability. Put simply...3 is better than 2 !



## Full range models



### Reason-X12

12" 3-way model  
All new Z38 PE HF Compression driver  
8.0" mid range  
3.0" LF voice coil with  $\phi$ 190 mm ferrite magnet  
Rotatable horn & 12 x M8 rigging points  
Max SPL @1m. 131 dB

**500 W AES (RMS) 1000 W PRG 2000 W PEAK**



### Reason-X15

15" 3-way model  
All new Z38 PE HF Compression driver  
8.0" mid range  
3.0" LF voice coil with  $\phi$ 190 mm ferrite magnet  
Rotatable horn & 12 x M8 rigging points  
Max SPL @1m. 133 dB

**600 W AES (RMS) 1200 W PRG 2400 W PEAK**

# Super Sub-sub-subwoofers



139 dB

## Reason-X18B

18" Subwoofer  
Premium baltic birch construction  
4.0" voice coil  
NOMEX Spider  
Aluminium basket

1000 W AES (RMS) 2000 W PRG 4000 W PEAK



148 dB

## Reason-X218B

Dual 18" Subwoofer  
Premium baltic birch construction  
4.0" voice coils  
NOMEX Spiders  
Aluminium baskets

2000 W AES (RMS) 4000 W PRG 8000 W PEAK

# Super special drivers



## Custom design - subwoofer driver

The 18" driver inside the Reason-X subwoofers has some special features.

**f 102.6 diameter voice coil.**  
(Thats OVER 4.0" but we say 4.0" because of number rounding)

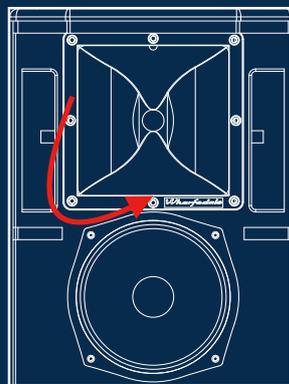
**Double-layer spider bonding.**  
Updated glue is used. This bonding can eliminate brittle cracking and reduces harmonic distortion.

**112 g Membrane.**  
The Reason-X subwoofer driver has a heavier membrane which can withstand more power without breaking.

**31 mm voice coil cavity.**  
A larger internal cavity for the coil windings allows Reason-X to have lower response by 5 Hz.

**6.2 ohm impedance.**  
The impedance peak is higher in the Reason-X driver at 35 Hz. This results in superior low end strength.

# Rotatable waveguide



A handy feature is the rotatable waveguide which allows Reason-X full range models to be used in the vertical or horizontal plane.

100° x 70° OR 70° x 100° - the Horizontal and Vertical dispersion can easily be changed.

# Z38 Compression Driver

The full range models (X12 and X15) feature an all-new Polyethylene flat diaphragm neodymium HF.

This highly engineered Z38 HF compression driver brings extreme HF clarity.

Enormous cooling fins disperse the heat generated and the unique 1.5 inch ring-shaped polyethylene flat diaphragm delivers a precious feeling of space and air to high frequencies.

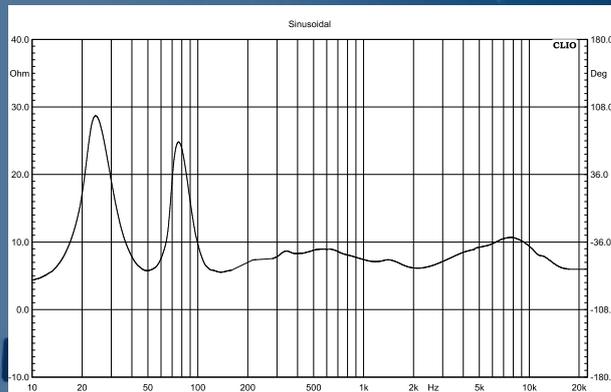
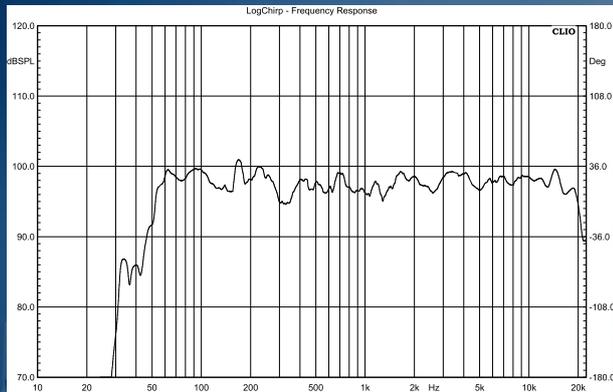
Advanced HF compression driver technology which delivers breathtaking results.



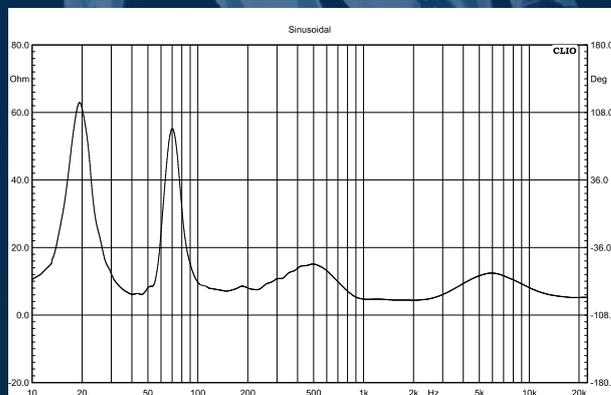
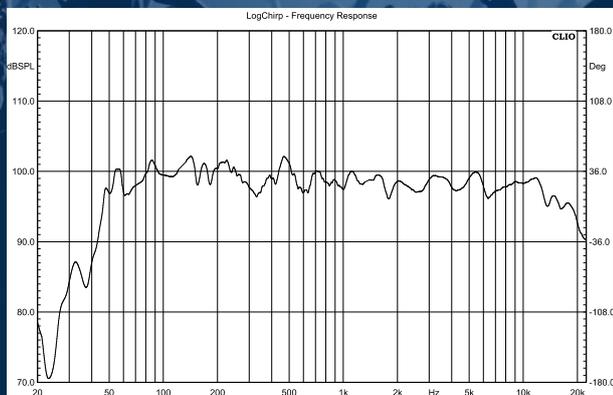
# Beautiful curves

The drivers and plywood construction of Reason-X lead to some impressive graphs !

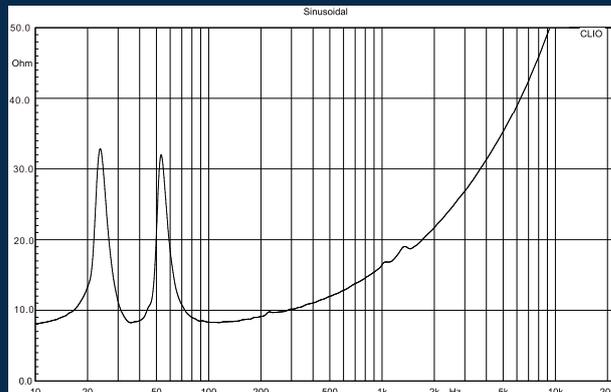
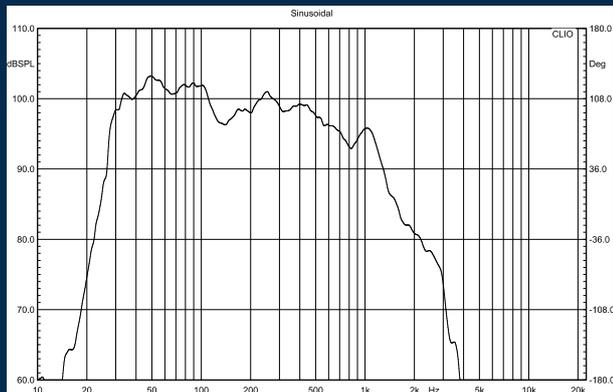
## Reason-X12



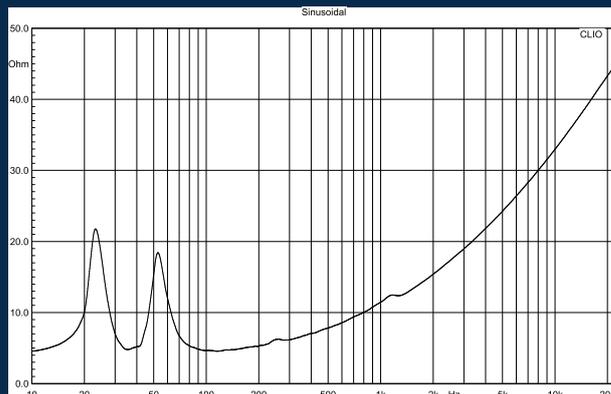
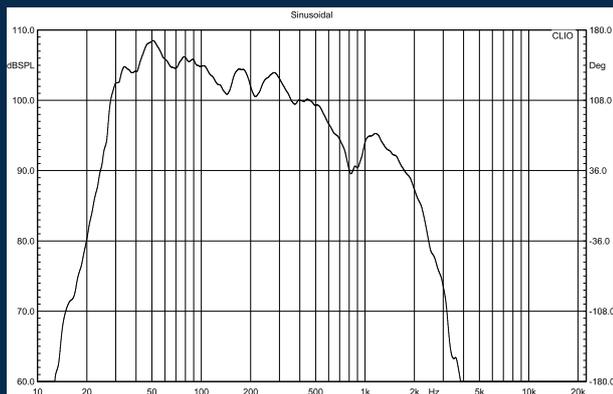
## Reason-X15



## Reason-X18B



## Reason-X218B



# SPECIFICATIONS



Model Name	Reason-X12	Reason-X15	Reason-X18B	Reason-X218B
System Type	Passive	Passive	Passive	Passive
Configuration	Three-way	Three-way	Single Subwoofer	Dual Subwoofer
Frequency Response (+/-3 dB)	55-20 kHz	45-20 kHz	35-1 kHz	30-1 kHz
Frequency Range (-10 dB)	50-20 kHz	40-20 kHz	30-800 Hz	25-800 Hz
Sensitivity 2.83 V / 1 Meter	98 dB	99 dB	103 dB	109 dB
Calculated Maximum SPL @1 Meter	131 dB	133 dB	139 dB	148 dB
System Rated Impedance	8 Ω	8 Ω	8 Ω	4 Ω
<b>Low Frequency Transducer</b>				
Size	332 mm / 12"	404 mm / 15"	470 mm / 18"	470 mm / 18"
Voice Coil Size	75 mm / 3.0"	75 mm / 3.0"	102 mm / 4"	102 mm / 4"
LF Magnet Material	ferrite	ferrite	ferrite	ferrite
LF Frame Material	Aluminium	Aluminium	Aluminium	Aluminium
Rated Impedance	8 Ω	8 Ω	8 Ω	2 x 8 Ω
LF Power re:AES2-2012	400 W	500 W	1000 W	2 x 1000 W
<b>Mid Frequency Transducer</b>				
Size	203.8 mm / 8"	203.8 mm / 8"		
Voice Coil Size	50.8 mm / 2.0"	50.8 mm / 2.0"		
MF Magnet Material	ferrite	ferrite		
MF Frame Material	Aluminium	Aluminium		
Rated Impedance	8 Ω	8 Ω		
MF Power re:AES2-2012	100 W	100 W		
<b>High Frequency Transducer</b>				
HF Driver Type	Compression Driver	Compression Driver		
Coil Size (mm / inches)	38 mm / 1.5"	38 mm / 1.5"		
Exit Size (mm / inches)	25 mm / 1"	25 mm / 1"		
HF Magnet Material	NdFeB	NdFeB		
Diaphragm Material	PEN	PEN		
Rated Impedance	8 Ω	8 Ω		
HF Power re:AES2-2012	40 W	40 W		
Waveguide Type	square	square		
Nominal Coverage (H x V)	100 x 70	100 x 70		
Nominal Impedance	8 Ω	8 Ω		
<b>Power</b>				
System AES (RMS) Power (W)	500 W	600 W	1000 W	2000 W
System Programme Power (W)	1000 W	1200 W	2000 W	4000 W
System Peak Power (W)	2000 W	2400 W	4000 W	8000 W
Crossover Frequency	800 Hz / 2.7 kHz	800 Hz / 2.7 kHz		
Input Connector	2 x speakON compatible			
Rigging	M8 x 12	M8 x 12	No	No
Handles	2 on Sides	2 on Sides	2 on Sides	4 on Sides
<b>Enclosure</b>				
Cabinet Type	35 mm pole socket			
Cabinet Type	Trapezoid	Trapezoid	square	square
Enclosure Material and finish	15 mm plywood	15 mm plywood	18 mm plywood	18 mm plywood
Colour Options	Black paint	Black paint	black paint	black paint
Grille Material & Finish	Steel	Steel	steel	steel
<b>Dimensions - Unpacked (mm / inches):</b>				
Height	814 mm / 32.0"	883 mm / 34.8"	600 mm / 23.6"	560 mm / 22.0"
Width Front	350 mm / 13.8"	430 mm / 16.9"	560 mm / 22.0"	1065 mm / 41.9"
Width Rear	231 mm / 9.1"	298 mm / 11.7"	560 mm / 22.0"	1065 mm / 41.9"
Depth	410 mm / 16.1"	455 mm / 17.9"	756 mm / 29.8"	756 mm / 29.8"
<b>Dimensions - Packed (mm / inches):</b>				
Height	909 mm / 35.8"	978 mm / 38.5"	670 mm / 26.4"	668 mm / 26.3"
Width Front	500 mm / 19.7"	545 mm / 21.5"	829 mm / 32.6"	1138 mm / 44.8"
Width Rear	500 mm / 19.7"	545 mm / 21.5"	829 mm / 32.6"	1138 mm / 44.8"
Depth	440 mm / 17.3"	520 mm / 20.5"	633 mm / 24.9"	829 mm / 32.6"
<b>Weight</b>				
Net Weight	29.0 kg / 63.8 lbs	32.5 kg / 71.5 lbs	45.5 kg / 100.1 lbs.	73.8 kg / 162.4 lbs.
Gross Weight	33.7 kg / 74.2 lbs	37.5 kg / 82.5 lbs	55.2 kg / 121.4 lbs.	87.7 kg / 192.9 lbs.

Errors and omissions excepted (E&OE) : Wharfedale Pro : Dec 2020