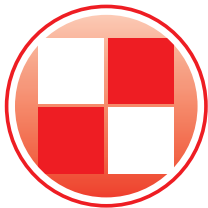


Macrodyne® Hardliner VRT™ Rooms

A Complete Range of Certified, Variable Reverberation Time (VRT) Rooms for Acoustic Testing of Electronic Devices & Other Products



VRT Rooms from IAC Acoustics provide a flexible solution that allows a large range of reverberation times in one room. A wide array of available room sizes and adjustable panel options ensure that even the most demanding product testing requirements are achievable.

In order to fully understand the acoustic performance of a product in multiple environments, the IAC's Macrodyne Hardliner VRT Rooms enable a user to adjust the reverberation time in order to study the effects of speech and performance in a variety of real-world situations.

Features Include:

- All components acoustically rated
- Variable reverberation times from 0.15 seconds up to 2.0 seconds or more
- 2' x 2' removable diffuser & absorber panels (lightweight for easy setup)
- Integrated LED lighting with power outlets & light/fan switches
- 4" thick wall panels
- Standard room sizes

Options Include:

- Custom room sizes
- Grated flooring system
- Vibration isolation for the entire room
- Variety of removable panel thicknesses depending on required performance
- Custom colors available for room surfaces & panels
- Pass-throughs available
- Custom ventilation

Room Layout & Construction

The construction of the IAC Macrodyne Hardliner rooms offers a sound transmission loss up to STC-64 rated, ensuring that only the noises generated inside the room are what is measured during testing. The prefabricated panel design makes for simple and cost-effective installation, and the modular system enables relocation of the room if needed.

The VRT rooms have recommended sizes to avoid room modes and ensure the acoustic energy in the room is dispersed evenly throughout the entire space. The table below highlights some of the standard sizes available. IAC Acoustics can also develop customized sizes to accommodate nearly any available space.

Standard Size Rooms (ft)		Model Number / 1/3 Octave Cut Off Frequency				
Dimension	Units	VRT-400 400 Hz	VRT-200 200 Hz	VRT-160 160 Hz	VRT-125 125 Hz	VRT-100 100 Hz
Lx	ft	16.0	18.5	19.5	27.0	26.0
Ly	ft	13.5	15.5	15.5	18.5	18.0
Lz	ft	7.5	9.0	12.0	11.5	15.5
V	ft ³	1620	2581	3627	5744	7254

Standard Size Rooms (ft)		Model Number / 1/3 Octave Cut Off Frequency				
Dimension	Units	VRT-400 400 Hz	VRT-200 200 Hz	VRT-160 160 Hz	VRT-125 125 Hz	VRT-100 100 Hz
Lx	m	4.9	5.6	5.9	8.2	7.9
Ly	m	4.1	4.7	4.7	5.6	5.5
Lz	m	2.3	2.7	3.7	3.5	4.7
V	m ³	46	73	103	163	205

Sound Transmission Loss, dB, by Octave Band Center Frequency, and Sound Transmission Class, STC, Rating									
Center Octave	63	125	250	500	1K	2K	4K	8K	STC
Noishield® Hard	22	33	45	52	58	68	75	65	56
Noise-Lock® II Hard	24	40	50	57	65	73	80	78	61
Noise-Lock® XV	23	43	54	59	66	68	72	63	64

Certification Testing for ISO & ETSI Standards