

INC[®] Dyno Test Rooms

Professional Chassis, Engine & Specialty Test Rooms for the PowerSports & Product Testing Market



- Proven performance
- Contains noise and removes exhaust
- Rugged modular steel panel construction
- Safe silenced ventilation systems
- High-performance acoustical doors and windows
- Predictable project schedule and cost
- Over 500 dyno rooms in operation worldwide





INC[®] Dyno Test Rooms

Professional Chassis, Engine & Specialty Test Rooms for the PowerSports & Product Testing Market

IAC Acoustics offers a complete line of affordable and functional INC Dyno Test Rooms for any dynamometer set up. Designed and constructed of our rugged industrial duty modular acoustical panel system, Moduline[®], our Dyno Test Rooms are easy to install, move or change with your facility and built to last. Design and performance features have been developed and tested specifically to work seamlessly with a variety of dynamometers and equipment applications to ensure a minimum of 40 decibel (dBA) sound level reduction and reliable proper ventilation.

INC Dyno Test Rooms have the most comprehensive line of packages available with pre-engineered kits specifically for chassis, engine, truck, transmission and wheel dynamometers.

INC Professional Dyno Test Room Benefits

- Maximizes your dynamometer investment
- Provides a controlled testing environment
- Ensures test & tuning repeatability
- Provides a safe workspace for technicians
- Showcases dynamometer facility
- Eliminates dangerous fumes
- Protects your dynamometer equipment
- Isolates high noise levels
- Attracts & impresses customers

Authorized Vendor in Harley-Davidson Tool & Equipment Program

IAC Acoustics is the authorized dynamometer room vendor in the Harley-Davidson Tool & Equipment Program and a proud partner of Motorcycle Mechanics Institute, Ranken Technical College, North Eastern Institute of Technology and HorsePower TV produced by RTM Productions.



Standard Included Features & Specifications

- STC-45 4" thick Moduline® construction style
- Interior ceiling height of 8'-0" (adequate for both pit & floor mounted dynamometers)
- One STC-51 dual seal, cam rise entry door (sized for engine or vehicle entry)
- One 60" wide x 42" high viewing window (can be located conveniently around the room)

Popular Accessories & Options

- Powerful silenced ventilation systems
- Larger double swing entry door
- Additional 42" wide viewing windows
- Large wide-view picture windows available in 60" and 96" widths
- Pre-wired modular lighting & electric package
- Factory baked powder coat finishes
- Adjoining operator control rooms
- Upgraded STC-58+ system designs
- Interlocking full rubber floor system
- Outdoor weather kits

A pre-engineered and manufactured INC Dyno Test Room is much less costly and performs substantially better than any custom designed, contractor or self-built room using conventional building materials. The long list of features and benefits of an INC room will set you apart from your competition by making yours a state-of-the-art, professional dyno testing facility.

Dyno Room Features	INC Dyno Rooms	Custom Contractor Built
Pre-engineered rooms readily available in kit form	YES	NO
Guaranteed predictable noise reduction — 40dBA or more	YES	NO
Guaranteed ventilation performance	YES	NO
Known fixed cost — stays on budget	YES	NO
Qualifies for accelerated depreciation & tax savings	YES	NO
Single source performance responsibility	YES	NO
Modular panel construction — easy to erect & change	YES	NO
Easy two to three-man assembly	YES	NO
Sound absorbing interior surfaces	YES	NO
Rugged structural & mechanical integrity — built tough	YES	NO
Corrosion resistant galvanized construction	YES	NO
All components meet ASTM E-84 Class I fire rating	YES	NO
High-performance acoustical doors & viewing windows	YES	NO
High-performance silenced ventilation systems	YES	NO
Safe, effective exhaust gas extraction & cooling air flow	YES	NO
Fast, predictable project completion schedule	YES	NO
No construction dust — minimal disruptions during assembly	YES	NO
Suitable for outdoor use (optional weather kit required)	YES	NO

Modular Design & Construction

IAC Moduline® Modular Acoustical Panel System is the basis of construction for our standard INC Dyno Test Rooms. This system consists of pre-engineered, modular acoustical components — “building blocks” — that can be configured and assembled into a wide variety of structures used to control and reduce excessive noise in industrial, commercial, institutional and community environments.

Although some details of construction are tailored to the specific type of dynamometer testing, all INC Dyno Test Rooms share these basic construction features:

- Factory pre-fabricated modular 4” thick wall & roof panels
- Solid steel exterior, perforated steel interior and fully insulated
- Sound Transmission Loss ratings from STC-40 to STC-61
- Sound Absorption Rating NRC = 0.80 -1.05
- Components of like size and type are fully interchangeable
- One-piece panel joiners provide leak-proof assembly and structural rigidity
- Heavy gauge steel base channels, corner trims & finish flashings
- Viewing windows are double glazed acoustical tempered safety glass
- All components fabricated from corrosion resistant galvanized steel
- All components are non-flammable and meet ASTM E-84 Class I fire rating



Dyno Room Standard Performance Options (more options available)		
GOOD	BETTER	BEST
Noishield Regular Panel Construction	Noise-Lock II Panel Construction	Noishield Hard Panel Construction
<ul style="list-style-type: none"> • STC-40 Acoustical Performance • Modular Design 	<ul style="list-style-type: none"> • STC-45 Acoustical Performance • Modular Design 	<ul style="list-style-type: none"> • STC-56 Acoustical Performance • Modular Design



Technicians & Engines Can Breathe Easy

A Dyno Test Room is only as effective as its ventilation system. Our optional silenced ventilation system guarantees the removal of heat, carbon monoxide and other combustion & exhaust gases while providing fresh air for engine consumption and operator comfort — without sacrificing any noise reduction!

Even when making long dyno runs with a load applying device, our silenced ventilation system with our unique flowthru design and exhaust source capture reduces harmful carbon monoxide levels to as low as 4 ppm!



Silenced Ventilation System

The silenced ventilation system is a flowthru design specifically configured to provide the high performance ventilation necessary for dynamometer testing. This requires making a complete air change inside the dyno room 8-10 times per minute or approximately one complete air change every 6-8 seconds while maintaining an inlet air velocity of approximately 2150 FPM. Our system does all of this while maintaining the acoustical integrity of the Dyno Test Room.

The silenced ventilation system works by drawing engine exhaust gases and heat out of the room through our unique PowerFlow® silenced exhaust stacks powered by roof-mounted severe duty exhaust fans. Fresh combustion and make-up air is drawn into the room through our aerodynamically designed inlet plenum. The system is inherently self-balancing and sized to operate under a slight negative static pressure to prevent exhaust gas leakage.

IAC ventilation systems are engineered to achieve optimal vehicle testing while ensuring that exhaust build up is not a concern.

Included for Chassis & Engine Dyno Test Rooms (up to 1000 HP)

- Exhaust system with silencer or chimney style stack outside rear of room
- Roof mounted fresh air inlet plenum with silencers & grille
- Up to 54" diameter x 10HP roof mounted exhaust fans with mounting transitions

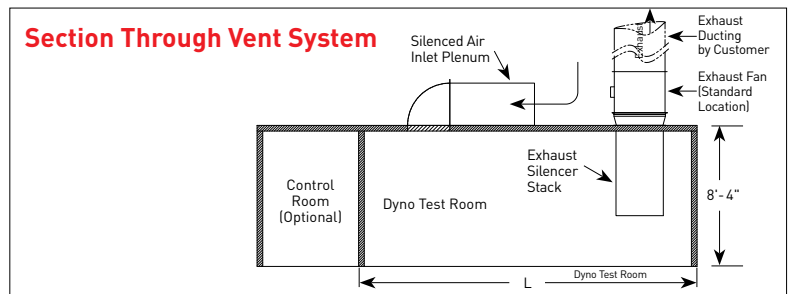
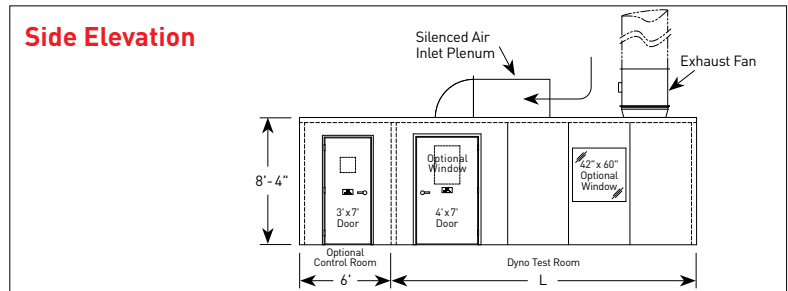
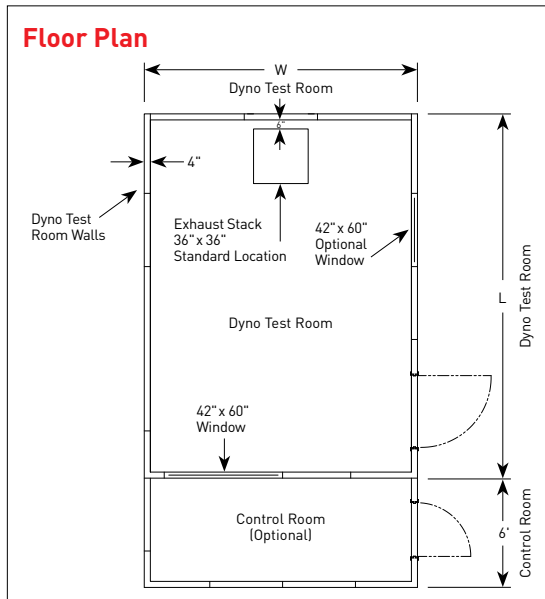
Additional Options

- Space-saver inlet plenums
- Low overhead exhaust & inlet configurations
- Outdoor mounted exhaust fans
- Increased vent capacity for higher HP applications
- Independent fresh combustion air intake

Please note that our vent systems require 208/230/460 volt 3-phase power. 120V single phase systems are available as a purchase option for some applications. You must duct the exhaust fans out of your facility. Inlet air may be drawn from shop ambient or ducted to the exterior of your building. All ductwork beyond the dyno room is to be provided by others.

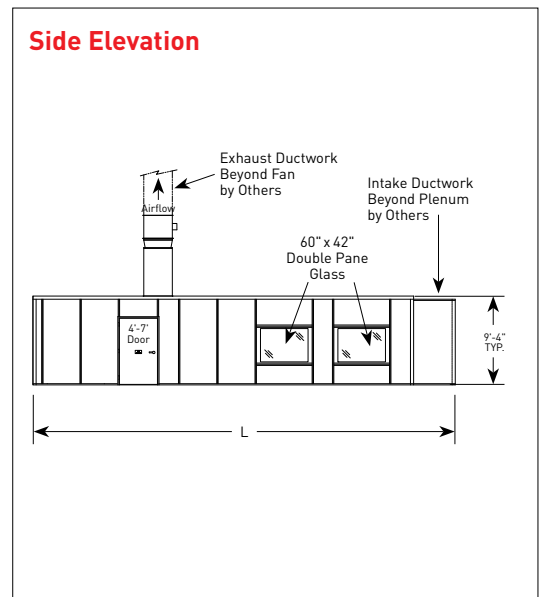
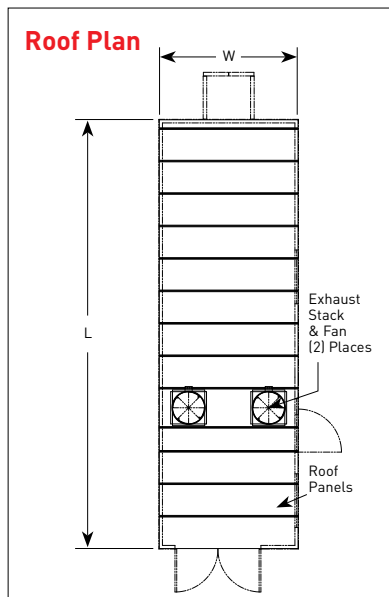
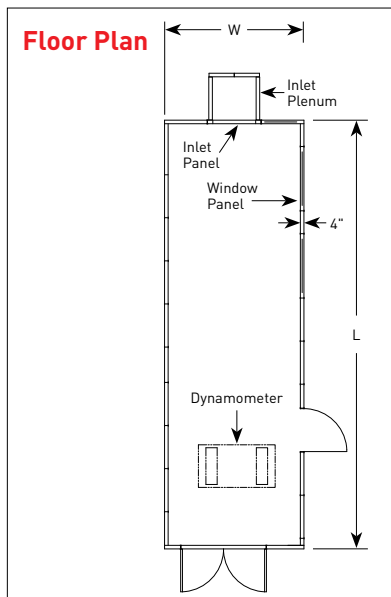
INC Engine Dyno Test Rooms Typical Dimensions

Room Size	W	L	Window	Door	6' Double Door	7' Double Door	Additional Windows
12' x 12' x 8'	12'	12'	42" x 60"	4' x 7'	AVAILABLE	NOT AVAILABLE	AVAILABLE
12' x 16' x 8'	12'	16'	42" x 60"	4' x 7'	AVAILABLE	NOT AVAILABLE	AVAILABLE
14' x 16' x 8'	14'	16'	42" x 60"	4' x 7'	AVAILABLE	AVAILABLE	AVAILABLE
14' x 20' x 8'	14'	20'	42" x 60"	4' x 7'	AVAILABLE	AVAILABLE	AVAILABLE
20' x 20' x 8'	20'	20'	42" x 60"	4' x 7'	AVAILABLE	AVAILABLE	AVAILABLE



INC Chassis Dyno Test Rooms Typical Dimensions

Room Size	W	L	Window	Door	8' x 10' Double Door	Additional Windows
14' x 17' x 9'	14'	17'	42" x 60"	8' x 8'	AVAILABLE	AVAILABLE
14' x 20' x 9'	14'	20'	42" x 60"	8' x 8'	AVAILABLE	AVAILABLE
16' x 24' x 9'	16'	24'	42" x 60"	8' x 8'	AVAILABLE	AVAILABLE
20' x 30' x 9'	20'	30'	42" x 60"	8' x 8'	AVAILABLE	AVAILABLE



INC Dyno Test rooms are available in virtually any size or shape. For a complete set of room plans and specifications, contact IAC Acoustics.

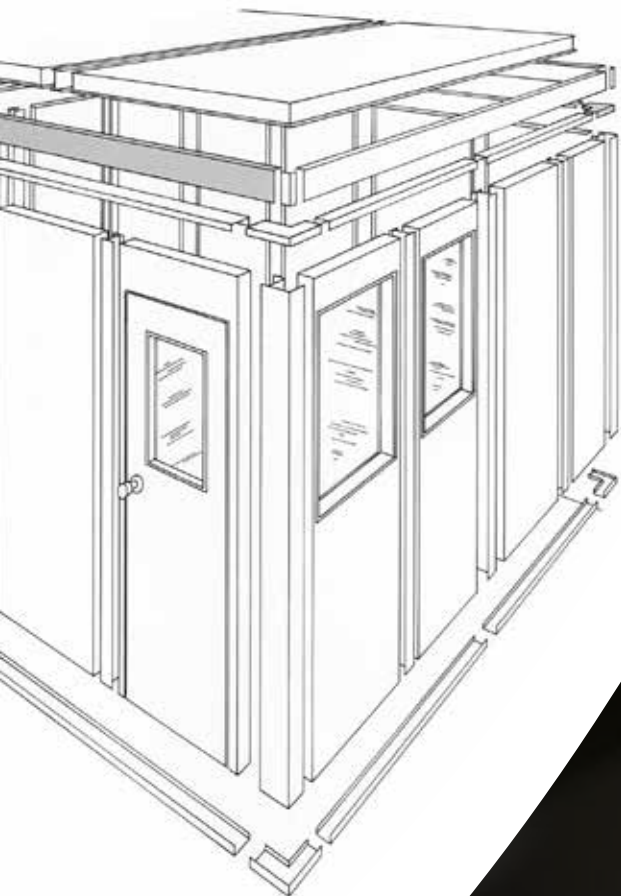
Installation

INC Dyno Test Rooms are shipped in modular kit form to be assembled on site by you or your local contractor. Our modular construction is specifically designed to be installed properly and easily with no previous experience. Assembly is very simple and can be done with a two to three person crew using ordinary hand tools in approximately 3-5 days. We have carefully designed our system to be user-installed and each room is shipped with detailed instructions and drawings — technical help is always available when needed.

INC Dyno Test Room Installation Process

- 1 Anchor base channel to your shop floor
- 2 Set and join wall panels, door & window panels
- 3 Assemble the roof & trim

IAC installation services are available upon request



IAC Moduline® Modular Acoustical Panel System — Dyno Room “building blocks”

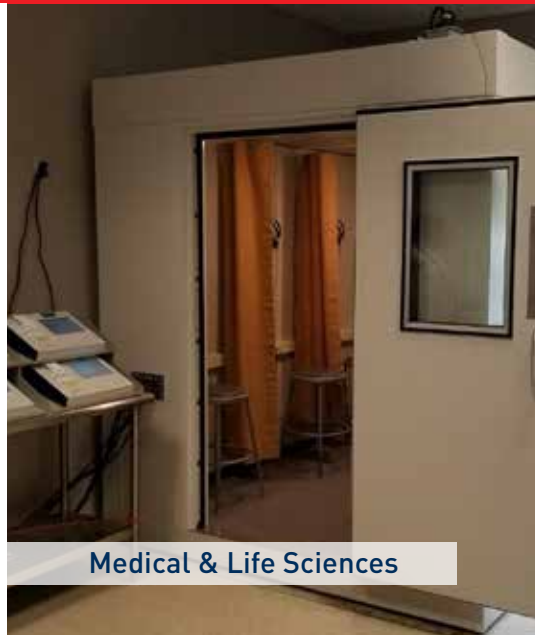
Pre-engineered, flexible modular design, predictable performance and built to last!

Making the World a Quieter Place

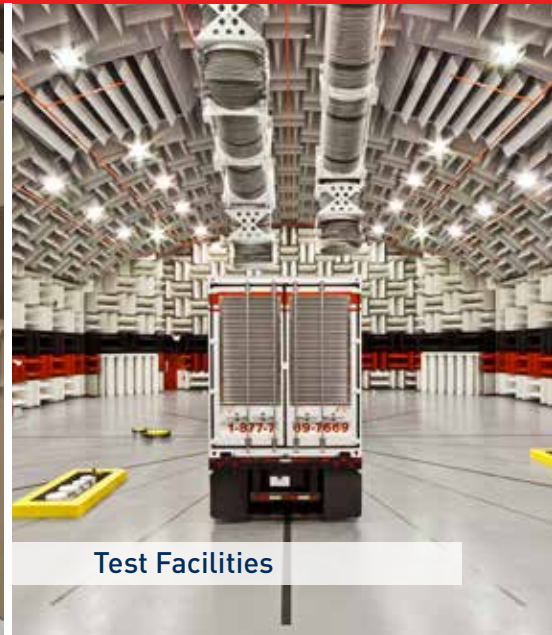
Markets Served by IAC Acoustics



Architectural



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Test Facilities



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Dyno Test Rooms



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