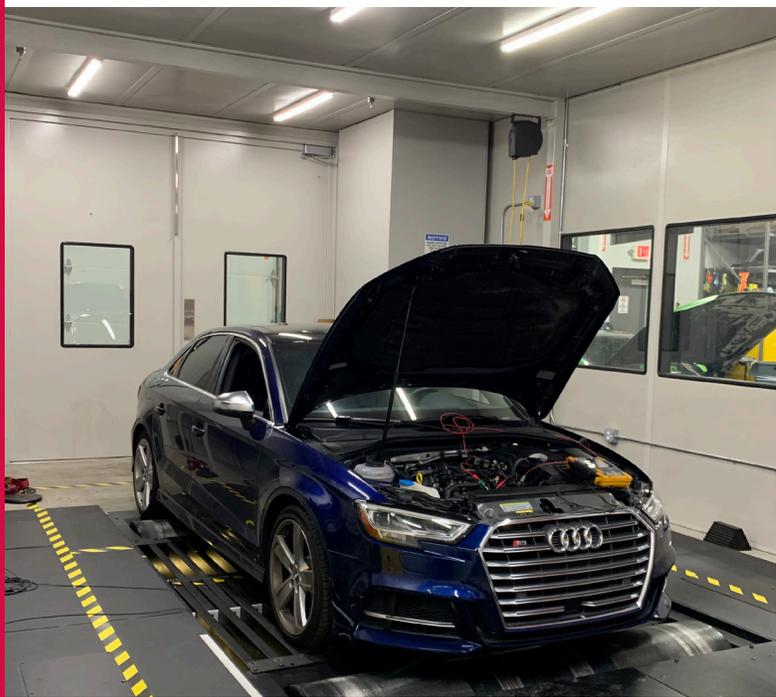


Case Study:

INC[®] Chassis Dyno Test Cell

▶▶ Nostrum High Performance
Ann Arbor, Michigan



IAC Acoustics Provides Test Cell for High-Performance Automotive Testing Within Business Campus

Nostrum High Performance is a highly sought-after performance car parts retailer and manufacturer, well-known for developing, among other products, combustion systems and fuel and water injector solutions through extensive thermodynamic and fluid dynamic development. With the rapid growth of the company, Nostrum moved its location from several locations in downtown Ann Arbor to a single consolidated campus with all business functions operating in a single facility, including new dynamometer testing and vehicle development capabilities. This new capacity to conduct performance testing on high horsepower vehicles was also in close proximity of other businesses as well as a children's academy. A challenge? Maintaining reasonable noise levels outside the host building.

Solution

IAC Acoustics was referred to for a solution that would meet production and sound requirements. The offering? A test cell constructed of IAC's STC45 Noise-Lock[®] II panel system. To accommodate the specific needs of the site, the test cell also contained a 10' by 10' Noise-Lock STC 51 vehicle entry door and multiple viewing windows. Rounding out the custom solution, IAC Acoustics provided a custom-engineered ventilation system to protect neighboring businesses.

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Installation & Acoustical Performance

The turnkey Dyno Test Cell was designed specifically for use with a pit-mounted 4-wheel drive automotive dynamometer capable of testing up to 2000 wHP vehicles. Able to accommodate front, rear and all-wheel drive vehicles, the test cell was constructed to appropriately fit within the allowable space of the host structure.

The successful installation of the Dyno Test Cell provided more than 40dba sound reduction meeting Nostrum's expectations and allowing the company to research and

develop their products without concerns in the community. An added benefit is the 70dba sound level within the lab, allowing technicians working around the area to do so freely, without hearing protection.

Of the results and as a testament to the improved noise levels, Frank LoScudato, Nostrum's Vice President of Development and Operations, shared that, "The neighbors [of Nostrum] did not know they were running a dyno and are very pleased with the noise [reduction of the cell]."