

*We have one goal — improving the noise and vibration quality of our customers' products. Roush delivers innovative, effective noise and vibration control solutions. By combining advanced analysis capabilities, comprehensive engineering services, and state-of-the-art facilities, Roush has become a proven partner in identifying and resolving challenging noise and vibration issues. Backed by the diverse capabilities of the Roush family of companies, we are uniquely equipped to provide turnkey noise and vibration solutions.*

*Roush... your silent partner in developing smoother, quieter products.*

## Tuned Mass Damper Products

Roush manufactures many types of advanced materials and finished products employed in real-world noise, vibration and harshness (NVH) control applications. Tuned Mass Dampers (TMD) are one of these engineered products currently in production with applications in motor vehicles and consumer products such as:

- Steering Wheel Dampers
- Powertrain Bending Dampers
- Half Shaft Dampers
- Exhaust Dampers
- Frame and Body Dampers
- Axle Dampers
- Sporting Goods Dampers



Roush offers engineering problem solving abilities and vast experience in the area of noise and vibration control. These problem solving capabilities partnered with our low cost manufacturing experience (over 10 years of offshore manufacturing history), bring a unique skill set to the market.



With over 30 years of direct problem solving experience, for virtually every industry, comes a confidence that we can solve your noise and vibration challenge; and bring the product to production at a very competitive price. We welcome the opportunity to meet with you to discuss your NVH needs and make recommendations that will add value to your product.





NOISE AND  
VIBRATION  
CONTROL  
PRODUCTS

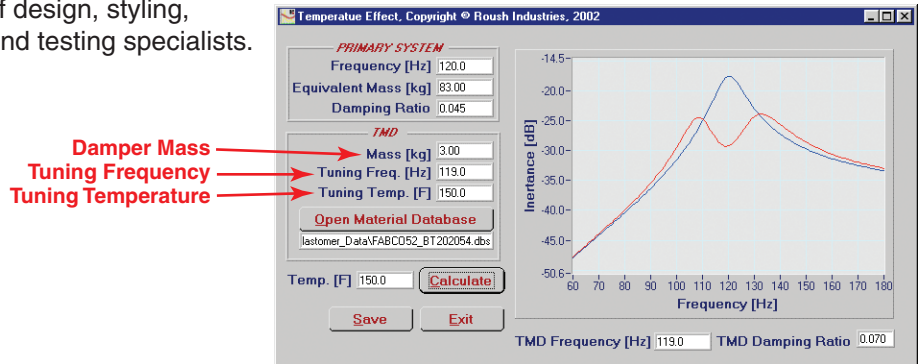
## Development and Prototype Capabilities

Utilizing our database of Viscoelastic Materials and our custom TMD development software, we can accurately predict the performance of the damper at any operating temperature prior to making the first prototype.

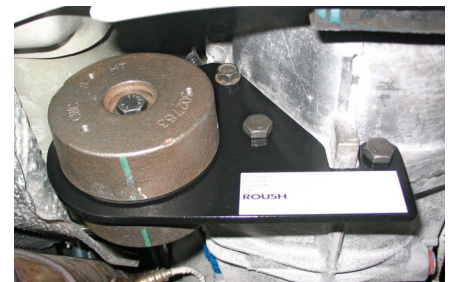
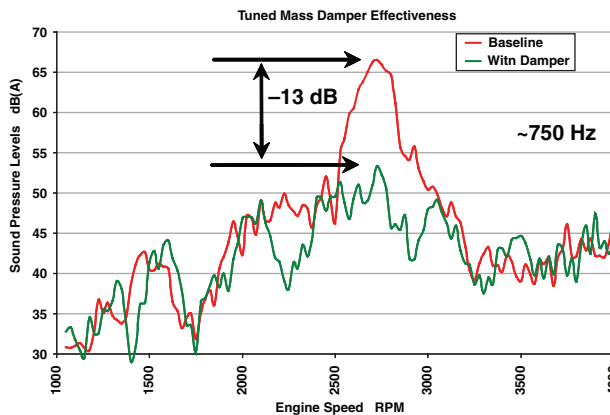
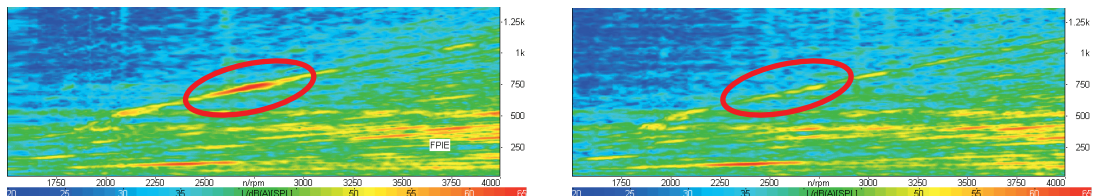
This process allows for faster prototype turnaround (2 weeks or less). In addition, it allows for optimization of weight vs. performance prior to prototyping.

If post launch changes are made to the vehicle affecting the tuning frequency of the damper, we can use this process to reduce lead-time, obsolescence costs and piece price.

In addition to our extensive production, tooling, molding, paint and assembly services; we have seamless access to the complete vehicle development services offered by Roush's global team of design, styling, engineering and testing specialists.



Roush tuned damper added to transmission side bracket resulted in 13 dB drop in transmission gear noise.

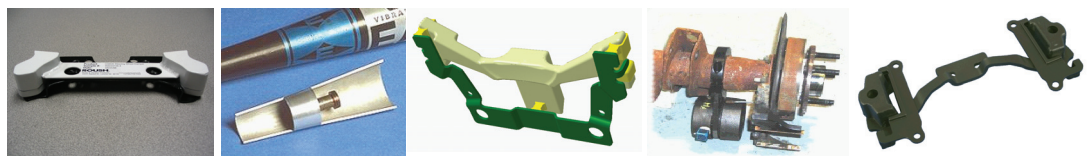


**ROUSH**

12011 Market St.  
Livonia, MI 48150  
Phone: 734-779-7003 or  
800-486-3637

Fax: 734-779-7903  
NVH@roush.com

[www.roush.com/NVH](http://www.roush.com/NVH)



### Product Performance and Suitability:

All information regarding the use of Roush products identified in this datasheet is believed to be reliable by Roush, but are not product specifications and must only be used as a guide. Roush does not represent or warrant that its products are fit for a particular purpose or that they do not infringe any U.S. or foreign patents. Purchaser must independently determine the suitability of the Roush products for their particular application. Unless written otherwise in Roush's Terms and Conditions of Sale for the product, this datasheet or any verbal statements made by any other distributor, salesman or representative about the product will not be deemed to create an express warranty of any kind.