



SOUTHWEST RESEARCH INSTITUTE



# Drivetrain Testing and Development

Southwest Research Institute® (SwRI®) provides comprehensive design, development, test and evaluation services to clients from automotive, heavy-duty, off-road, marine, industrial and military industries.

SwRI engineers have extensive experience in a comprehensive array of specialty design, test and development capabilities to assist manufacturers with new transmission design, transmission and drivetrain component development, vehicle development, benchmarking and resolution of drivetrain problems. This includes automatic, continuously variable, hybrid, and manual transmission drivetrains and their components.

## Test and Evaluation Assemblies

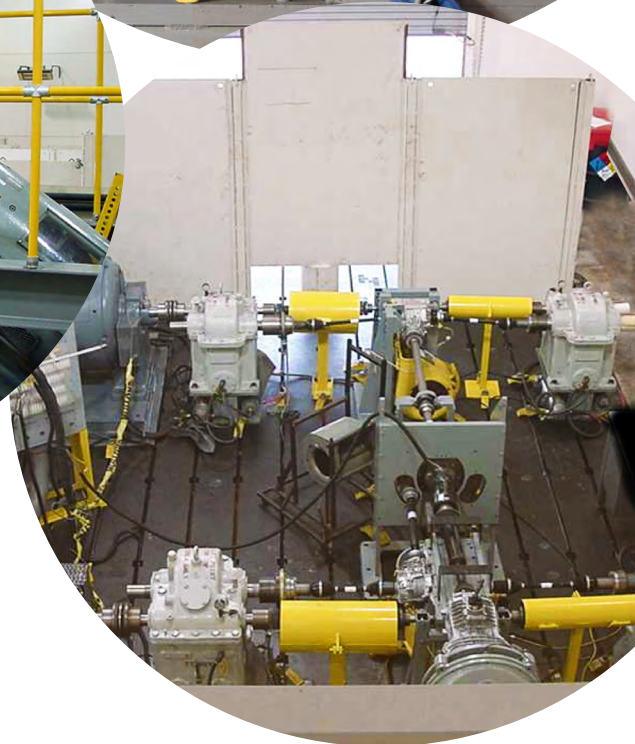
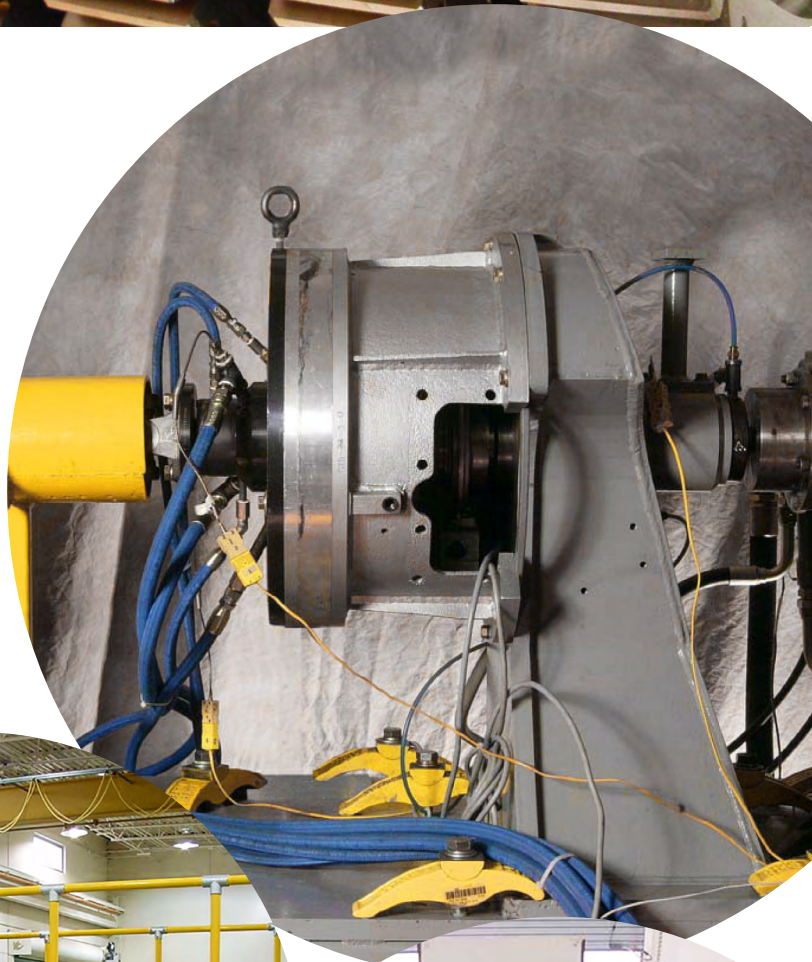
- Transmissions
- Transaxles
- Transfer cases
- Axles
- All-wheel drive systems
- Light and heavy duty
- Hybrid electric/hydraulic systems

## Components

- Torque converters
- Clutches
- Gears
- Chains
- CVT components
- Pumps and hydraulics

## Tests

- Engine firing pulse simulation
- Engine inertia simulation
- Dynamic road load
- Drive cycle
- Efficiency
- Spin loss
- Durability
- Functionality
- Development

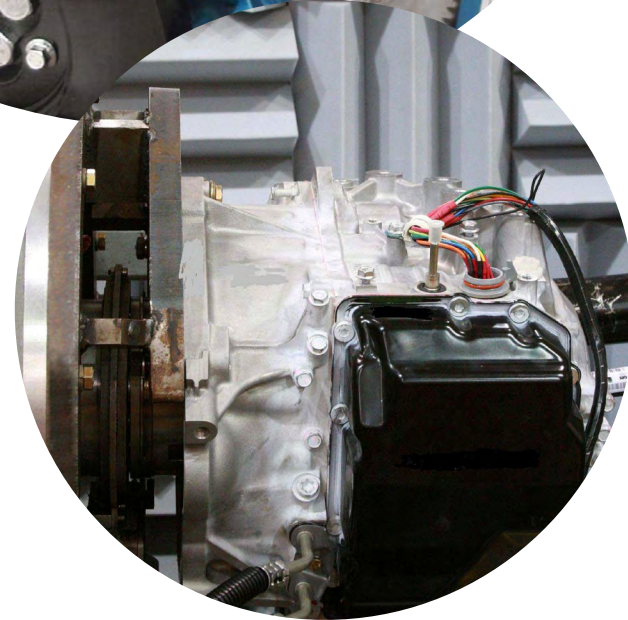
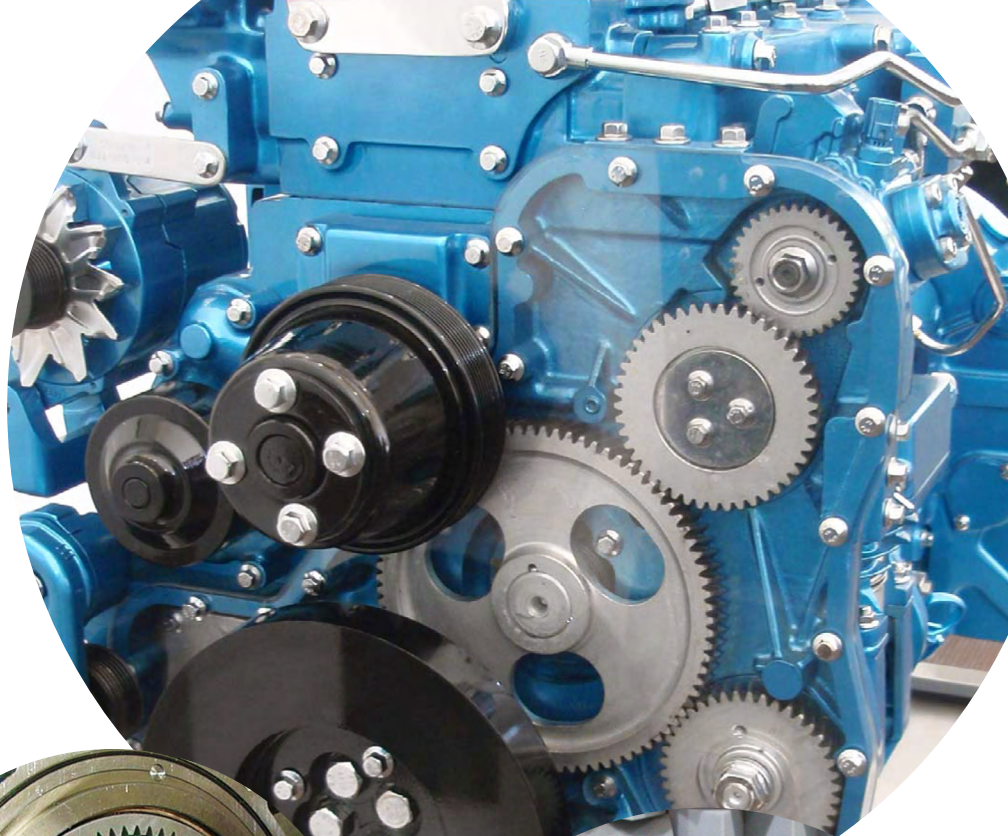


## Design and Development Design

- Automatic transmissions
- Dual clutch transmissions
- Continuously variable transmissions
- Hybrid systems
- Gearboxes
- Engine geartrain

## Development

- NVH
- Shift calibration
- Torsional vibration
- Efficiency improvement
- Clutches
- Failure analysis
- Benchmarking



**We welcome your inquiries.  
For more information, please contact:**

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## SOUTHWEST RESEARCH INSTITUTE

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