

Motorsports Testing Solutions

be certain.

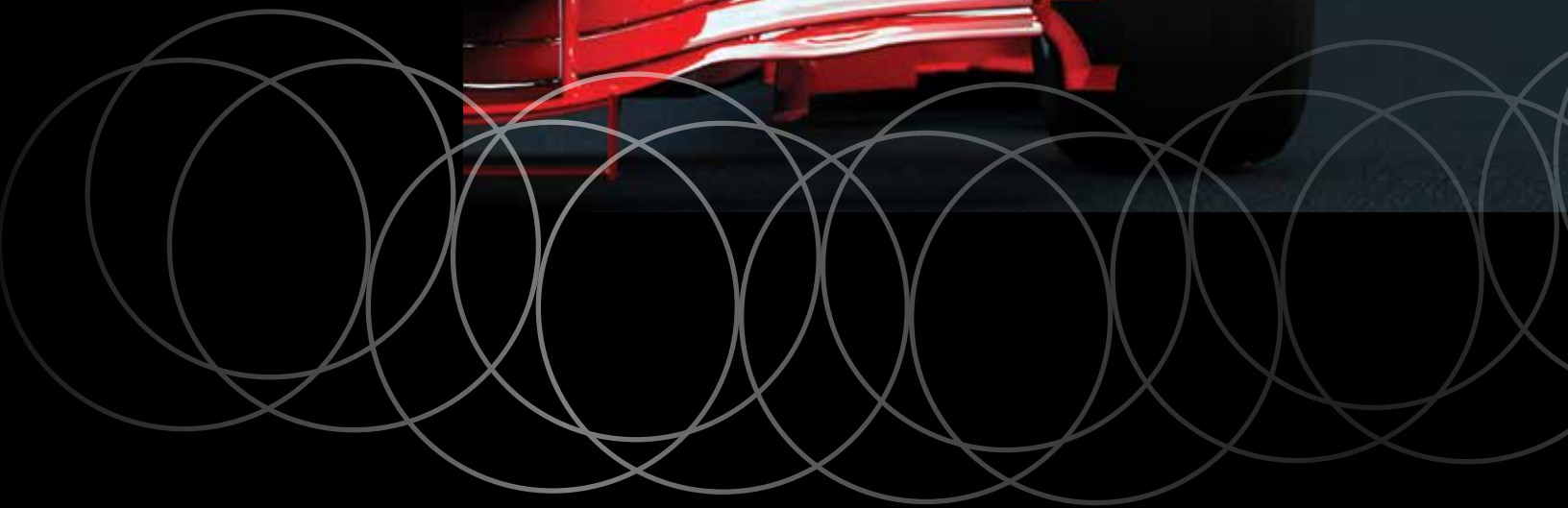
OPTIMIZE YOUR RACING VEHICLE DESIGN, DEVELOPMENT AND SETUPS WITH

MTS. OUR TESTING SOLUTIONS ARE CURRENTLY IN USE BY TOP RACING TEAMS

AROUND THE WORLD, AND MTS ENGINEERS AND SUPPORT TEAMS ARE SOME OF

THE INDUSTRY'S MOST EXPERIENCED. NO OTHER TEST SOLUTIONS MANUFACTURER

OFFERS THIS DEPTH OF EXPERTISE OR BREADTH OF PRODUCTS AND SERVICES.



Keeping motorsports teams in a winning position

The racing may be done on the track, but the winning is done long before you get there. That is why the world's top racing teams partner with MTS.

In the modern battle for hundredths-of-a-second gains in lap times, no detail is too small, and no vehicle component overlooked. Suspension. Drivetrain. Tires. Aerodynamics. All must be optimized to the car, track, weather conditions and driver. And all of this must be done within ever-shortening time frames.

MTS provides solutions and experience to help you confidently decide which setup specifications you need to optimize race car performance. Our unrivaled combination of proven testing systems and force-and-motion control expertise can help accelerate your design, development and setup process, allowing you to put a better car on the track, faster.

3



Repeatability

Tests that do not accurately represent the race, or cannot be repeated, have little use to racing teams. MTS engineers understand the importance of reliability and repeatability, so they work from conception to deployment to help ensure that lab simulations provide reliable inputs that can be repeated test after test.

Expertise

Since 1966, MTS has been at the forefront of vehicle test technology development. That experience has not only yielded many pioneering technologies that are now considered industry standards. It also provides us with an unmatched depth of insight about the specific testing and simulation needs of today's racing teams.

Precision

Motorsports racing sometimes comes down to how to gain fractions of a second by making minor setup changes. The knowledge you need to make such slight adjustments begins in the predictable confines of the lab. We can help you reach this level of precision with some of the most accurate testing systems in the industry.



SLOW

MTS

The complete offering of motorsports testing solutions

MTS holds an unrivaled track record in helping motorsports teams meet the ever-changing challenges of vehicle development and testing setups. Whether you need to quickly measure suspension parameters or create a customized aerodynamic simulation, MTS' proven equipment and renowned expertise will provide you with the right information at the right time.

The MTS 7-Post Test System optimizes initial vehicle suspension setup by accurately simulating both road and aerodynamic inputs.

ONE RESOURCE FOR ALL YOUR SUSPENSION TESTING NEEDS

Whether you employ top-down or bottom-up design approach, a complete range of proven MTS testing solutions can get you the right information at the right time. In addition to our innovative 7-post shaker and our industry-leading Kinematic & Compliance solutions, we offer:

- » Easily mounted SWIFT® Evo Spinning Wheel Integrated Force Transducers for capturing complete and accurate spindle load data as the car is driven over the proving ground or the racetrack.
- » Shock dynamometers that can run either short bursts of high-performing cycles to measure damping characteristics or millions of cycles to test the limits of durability.
- » MTS Criterion® Electromechanical Testing Systems that apply advanced MTS technology to even the simplest tests of springs, bump rubbers and other components.

Suspension testing solutions

Suspension geometry and setup are some of the most complex and critical components of the racing vehicle. They can require almost a physicist's understanding of the interactions of every system and component. The complexity has reached such a level that many racing teams are often forced to rely on gut feel to make last-second setup decisions.

As the global leader in suspension characterization and simulation technology, MTS can help. In fact, more test labs around the world use our systems than all others combined. We're the only company that can help you both test your designs and fine-tune your race setups.



MTS Kinematic & Compliance Test Systems quickly and accurately measure key suspension parameters to help you adjust your setup for maximum driving performance.

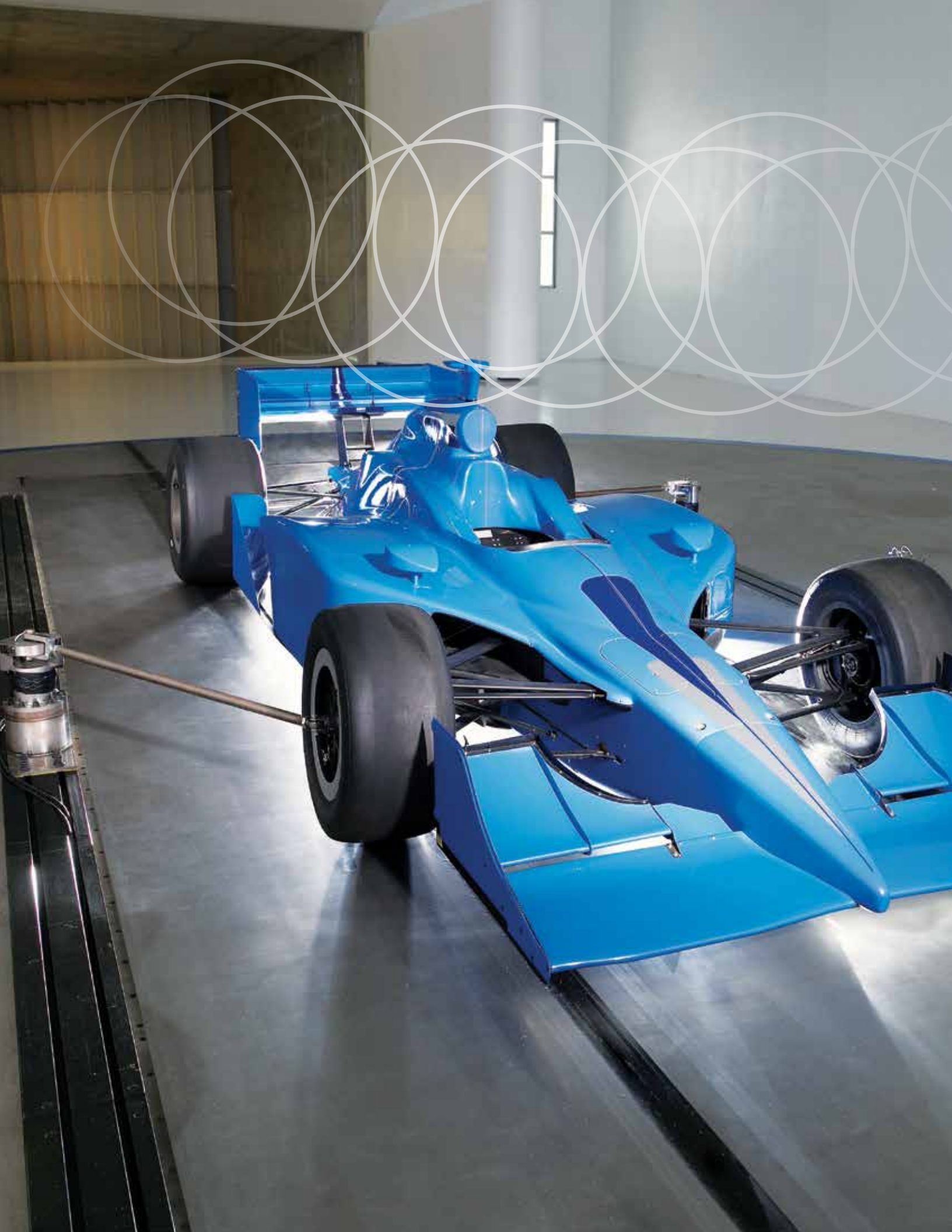
MTS 7-Post Test System

By accurately simulating both road and aerodynamic inputs, the MTS 7-Post Test System is ideal for optimizing the initial suspension setup of a race vehicle. The MTS 7-post test rig features four actuators that simulate vertical track input to the tire, while our exclusive downforce actuators apply the aerodynamic loads necessary to adjust ride height, heave, pitch and roll. With its rapid setup and powerful software tools, the MTS 7-post rig makes testing easy and extraordinarily precise.

MTS Kinematic & Compliance Test System

The MTS Kinematic & Compliance Test System tells you precisely how your setup will affect driving performance. While holding the vehicle body fixed, four independent loading platforms apply precisely controlled displacement or force inputs and then accurately measure the kinematic and compliance deflections of your racing vehicle's suspension. Accurate measurement, flexible control and unrestricted access to the suspension enable you to evolve your setup rapidly.

The MTS Dynamic K&C Test System delivers expanded capability, providing another level of understanding of suspension performance. Gain further competitive advantage with the ability to simulate rough road inputs and transient maneuvers.



The complete offering



Tire testing solutions

For all their round-and-black simplicity, tires are an incredibly complex, difficult-to-model and highly influential component of any race. MTS Flat-Trac® LTR Tire Test Systems set the industry standard for tire force and moment measurement. By providing vital information about how tires will perform on specific tracks or cars, and at various speeds and race day conditions, this system helps you optimize your setup for maximum tire performance.



7

Aerodynamic testing solutions

After they reach a certain speed, race cars begin to behave less and less like automobiles and more like airplanes. With race speeds climbing ever higher, you need increasingly advanced tools to help you understand the aerodynamic properties of your vehicle designs.

The MTS Flat-Trac Rolling Road System improves aerodynamic simulation not just over, but also underneath, your race car. Choose a multibelt system with an exclusive MTS dynamic platform balance, or combine the simulation benefits of a single-belt roadway with MTS' unique ability to directly measure all aerodynamic forces and moments of your vehicle.

Drivetrain testing solutions

Testing and tuning your advancements in drivetrain technology are critical to overall race car performance. MTS Permanent Magnet (PM) Dynamometers replace both engine and wheels for a perfect inertia match and complete dynamic content. They can help you perform accurate testing without the high costs, noise, pollution and dangers of a running engine.

World-class service and support

MTS fields the largest, most experienced worldwide services, support and consulting staff of any testing solutions provider. Our global team offers complete lifecycle management services for all your simulation and test systems, helping to maximize your testing productivity and uptime.

By partnering with MTS, you get a company fully committed to collaboration. We listen to your team's needs and work closely with you to develop the ideal solution. A worldwide network of engineers, consultants and field service representatives stands ready to help whenever and wherever it's needed.

Learn more today

Contact us for more information about how MTS can help you optimize your racing vehicle design, development and setups.



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