Concrete Testing Solutions

be certain.
WITH DECADES OF INDUSTRY EXPERIENCE, AN ARRAY OF HIGH-STIFFNESS, HIGH-FORCE SERVOHYDRAULIC TEST SYSTEMS, AND UNMATCHED GLOBAL SUPPORT, MTS STANDS UNIQUELY QUALIFIED TO ADDRESS ALL OF YOUR CONCRETE AND REINFORCED CONCRETE MATERIAL, COMPONENT AND STRUCTURAL TEST REQUIREMENTS.
Civil engineers constantly push the boundaries in pursuit of ways to build larger, taller, stronger and more enduring structures, in a faster and more cost-efficient manner. That pursuit requires deep insight into the mechanical properties of concrete and reinforced concrete materials, components and structures.

Gaining this insight requires test systems capable of managing the high forces, complex loads and brittle behavior characteristic of concrete.

Every day around the world, engineers and researchers insist on MTS for the expertise, technology and support they need to characterize all forms of concrete and reinforced concrete with confidence. We have installed more servohydraulic test systems than any other manufacturer, and our extensive experience working with concrete testing professionals has equipped us with significant expertise in system integration and facilities planning.

These test professionals choose MTS because of our unmatched ability to help them achieve the deepest levels of understanding and certainty. We can do the same for you.

Knowledge
By working with MTS, you’ll be applying four decades of industry experience toward meeting your concrete testing requirements. The many partnerships we’ve formed during this time have enriched our expertise, and now all of this knowledge can be applied toward increasing your testing certainty. Whether your needs are commonplace or unique, you can count on MTS to help you address them.

Performance
A full array of proven MTS products and services allows customers to meet all of their concrete and reinforced concrete testing objectives from a single, reliable resource. Every MTS solution provides the precise, repeatable and reliable performance you need to maximize your uptime and confidently pursue your testing objectives.

Support
We surround our industry-leading concrete testing solutions with a vast service network, featuring a global reach and responsive representation. No matter where your concrete testing occurs, you’ll receive the ongoing assistance you need, when and where you need it. That includes smart maintenance programs, professional calibration, comprehensive training and technical support.
MTS has extensive expertise providing solutions for today’s most critical concrete and reinforced concrete material evaluation applications. We’ve worked alongside test professionals in a variety of industries for decades, with particular expertise assisting test professionals in construction and concrete mechanics research.

**Broad product selection**

The MTS offering includes the full range of high-performance hardware, software, and accessories required to meet your concrete and reinforced concrete testing requirements. All our products are designed to function as integrated mechanical systems and adhere to standard test protocols.

MTS solutions employ the most advanced technology for managing the high forces, complex loads and brittle material behavior common to concrete testing.

If you have unique requirements, nobody customizes like MTS. Tell us your needs and we will work with you to meet them.

The MTS concrete testing solutions offering comprises:

» An array of versatile servohydraulic test systems for meeting a full spectrum of concrete testing and real world simulation requirements

» Extremely flexible software with application-specific templates

» Configurable digital servocontrollers

» Precision uniaxial cells, transducers, grips, fixtures and sensors

» Reliable hydraulic power units (HPUs)

» Expert system integration and facilities planning

» Unrivaled global service and support
Concrete testing has direct consequences on the lives of real people. MTS can help you confidently understand how each concrete material, component and structure you develop will ultimately perform in its intended application.
Ideal solutions for your needs

Whether you’re verifying material suitability for a construction site or pursuing a new idea that might forever change the industry, MTS offers everything you need to effectively manage the concrete and reinforced concrete testing that your work requires.

**Construction**

Is the design concept feasible? Will the specified concrete-based material, component or structure perform as required? Before any construction project can begin or any component can be offered by a supplier, these and other critical questions must be decisively answered by civil and structural engineers.

MTS intimately understands these challenges and how to address them. We offer a proven history of helping construction companies efficiently characterize the suitability of concrete and reinforced concrete materials, components and structures for specific applications. We have also assisted suppliers in leveraging the latest materials and techniques to develop innovative new products. Our customers leverage the most advanced technology available for determining a concrete material’s performance characteristics, helping to minimize uncertainty on the job site or within the product development department.

**Research**

With an abundance of new projects incorporating concrete-based materials, components and structures around the world, significant opportunity exists for university and government researchers to advance the concrete materials science. That includes an emerging need for new techniques that minimize carbon footprints without sacrificing strength or durability. MTS specializes in helping independent-minded scientists pursue such research initiatives with confidence.

Whether your research involves new concrete formulations, new reinforcement techniques, or new concrete-based components, MTS offers the solutions and expertise necessary to help you complete it with precision and efficiency. By working with us, you can be certain that you’re using the best tools available to leave your lasting impression on the concrete materials body of knowledge. We can also help you integrate the latest technology into your existing test lab configuration with minimal disruption to your operations.
Why manage multiple vendors to support your concrete testing requirements? By partnering with MTS, you’ll find all the products, service and expertise you need from a single provider with a 40-year history of helping concrete testing professionals around the world.

MTS concrete testing solutions are designed in cooperation with leading concrete test labs from around the world, helping to keep our customers at the forefront of the industry.

DURABLE ACCESSORIES TO OPTIMIZE YOUR TESTING

MTS concrete testing solutions include proven, top-quality accessories designed to meet rigorous industry standards across the full range of applications. All MTS accessories are optimized to help you improve the quality and efficiency of your construction, research or product development objectives.

Uniaxial Accessories. MTS uniaxial concrete testing packages are designed to help you meet a full spectrum of industry-standard testing requirements for concrete specimens and reinforcing structures. Each package includes the bend fixtures and platens required to efficiently manage all of your compression, direct tension, indirect tension and fracture toughness testing.

Extensometers. The 632.9X family of MTS extensometers is ideally suited for measuring concrete material strains under high forces and complex loads. You’ll benefit from outstanding accuracy, control and durability for uncovering the deformative characteristics of concrete materials.

Environmental Simulation Systems. We partner with leading manufacturers to provide integrated systems for testing concrete materials in a wide range of temperature, humidity and caustic/corrosive conditions.

MTS environmental chambers facilitate highly accurate mechanical testing of concrete specimens under demanding, real world conditions. Designed for seamless integration with MTS load frames, these chambers are ideal for subjecting specimens under test to extreme temperatures and humidity.

Load frames

We engineer every MTS load frame to deliver years of reliable performance, with versatility to operate over a broad range of frequencies and force capacities. Our offering includes static-hydraulic load frames for basic monotonic testing, along with the MTS 815 and MTS 816 test systems for advanced monotonic testing. The high-capacity MTS 311 test system is designed to meet your dynamic testing needs, along with the MTS Landmark™ family for flexible dynamic testing when high force is not required.

Specialty test systems

Choose from several test systems that are optimized to provide a highly affordable solution for a specific concrete testing application. The MTS specialty test system offering includes compression test systems, rebar bending test systems and penetration-resistance test systems.

Software

MTS Application Software for Concrete and Rebar provides a complete set of test templates that follow standard test sequences and analyses described by standard test protocols. These templates guide you through testing, data acquisition and report generation using familiar macros from Microsoft® Office. Or, you can easily create custom templates of your own. This software is based on MultiPurpose TestWare® (MPT™) software, offers a highly flexible, “drag-and-drop” environment for building standard and nonstandard tests.

Everything you need for quality concrete and reinforced concrete testing
Multi-axial Shell Element Test (SET) System, University of Toronto
Digital servocontrollers

Versatile FlexTest® controllers provide the flexibility you need to address a full spectrum of testing needs and adapt readily to evolving standards. Scalable and easy to use, FlexTest controllers provide the high-speed closed-loop control, data acquisition, function generation and transducer conditioning required to conduct reliable single- and multi-channel material testing across multiple stations. FlexTest digital controller software can be integrated with office PC networks and support the full array of MTS test application software.

Hydraulic distribution systems

For more than 40 years, MTS has been deeply involved in the engineering, fabrication and installation of hydraulic hardline and distribution systems. During this time, we have specified everything from simple piping to highly complex networking distributions and everything in between. Our engineers will work closely with you at the conceptual stages, applying sound engineering practices to provide the safest, quietest, most reliable and most efficient system possible for your test lab.

Unrivaled service and support

MTS fields the largest, most experienced worldwide service, support and consulting staff of any testing solution provider. This global team offers complete lifecycle management services for all your test systems, helping to maximize your productivity and uptime, so you can complete your test programs as quickly as possible. The exhaustive MTS service offering includes:

» Professional services and consulting
» System integration and facilities planning
» Maintenance services and spare parts
» Accessories and upgrades
» Lifetime system protection
Learn more today

Optimize the efficiency and productivity today by partnering with the world’s leading global provider of concrete testing solutions. Learn more about how MTS can help you achieve your concrete material-related objectives.