

THE BEST SCIENCE BEGINS WITH THE BEST MEASUREMENTS

AMTI

At AMTI we appreciate the importance of accuracy and precision in scientific research and healthcare. We innovate continually to provide you with the best equipment for your biomechanical applications. Whether studying gait, balance, sports, or more, researchers and clinicians worldwide rely on AMTI to provide instrumentation with the highest performance and repeatability.

AMTI multi-axis force plates precisely measure three forces and moments to provide a complete kinetic representation of movement. As an ISO 9001 certified, ISO 13485 certified, and ISO 17025 accredited company, we are committed to continuous quality product evaluation and improvement.

Force plates for biomechanics

AMTI multi-axis force plates exhibit high sensitivity and superior accuracy to provide the best fundamental measurements. Available in mounted and portable versions with a complete suite of software, AMTI force plates readily integrate with all major motion capture systems.

- Available Force Plate Sizes:**
15 cm to 1.2m, square and rectangular shapes
- Available Filler-plate sizes:**
1/4, 1/2, full, with respect to the size of the working plate
- Available Force Measuring Capacity:**
5 N to 18,000 N



Our patented technology meets the new ASTM F3109-16 standard for performance verification of multi-axis force platforms.

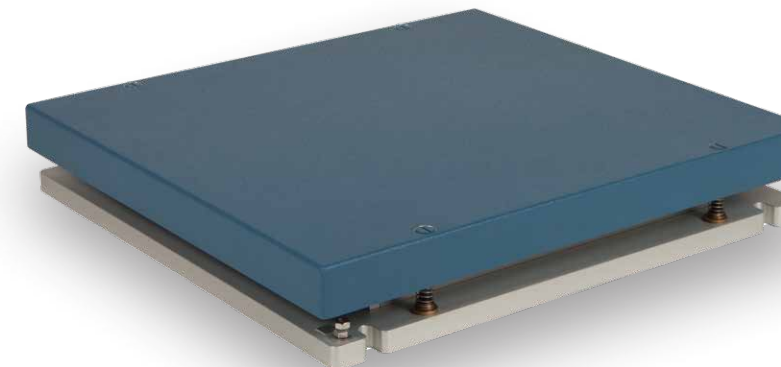
OPTIMA TECHNOLOGY

AMTI OPTIMA-HPS and OPTIMA-BMS platforms are raising the bar for force plate performance. Our patented OPTIMA technology makes OPTIMA platforms the only force plates to meet the ASTM F3109-16 calibration standard. This represents an unprecedented advancement for gait and biomechanical force measurement systems (U.S. patent number 9,459,173.)

OPTIMA-HPS (High Performance Series)

The MOST ACCURATE force plate available. Period.

OPTIMA-HPS force plates feature extreme accuracy. AMTI has established our OPTIMA calibration as a best-in-industry process, making OPTIMA-HPS force plates up to **100x more accurate** over the entire working surface than leading competitors.



HPS464508HF

OPTIMA-HPS SPECIFICATIONS*	
CENTER OF PRESSURE (COP) ERROR, TYPICAL	<0.2 mm
CROSSTALK, % APPLIED LOAD, TYPICAL	±0.05%
MEASUREMENT ACCURACY, % APPLIED LOAD, TYPICAL	±0.10%

*minimum 50 lbs

AVAILABLE OPTIMA-HPS MODELS			
Model Number	Dimensions (WxLxH)	Capacities Available	High Frequency Design
HPS400600	400 mm x 600 mm x 83 mm	4448, 8896 N	
HPS400600HF	400 mm x 600 mm x 83 mm	4448, 8896 N	✓
HPS464508	464 mm x 508 mm x 83 mm	4448, 8896 N	
HPS464508HF	464 mm x 508 mm x 83 mm	4448, 8896 N	✓

OPTIMA-BMS (Bio-Measurement Series)

OPTIMA technology in the most affordable package



BMS6001200

The OPTIMA-BMS line expands AMTI's patented OPTIMA calibration to our large area force platforms. The result is a force plate that is easily more accurate - right to the edges - than any of our competitors systems and second only to the High Performance Series (HPS).

OPTIMA-BMS SPECIFICATIONS*	
CENTER OF PRESSURE (COP) ERROR, TYPICAL	<0.5 mm
CROSSTALK, % APPLIED LOAD, TYPICAL	±0.2%
MEASUREMENT ACCURACY, % APPLIED LOAD, TYPICAL	±0.5%

*minimum applied load: 50 lbs

AVAILABLE OPTIMA-BMS MODELS			
Model Number	Dimensions (WxLxH)	Capacities Available	Composite Top Design
BMS400600	400 mm x 600 mm x 83 mm	4448, 8896 N	
BMS400600HF	400 mm x 600 mm x 83 mm	4448, 8896 N	✓
BMS464508	464 mm x 508 mm x 83 mm	4448, 8896 N	
BMS464508HF	464 mm x 508 mm x 83 mm	4448, 8896 N	✓
BMS600600	600 mm x 600 mm x 102 mm	4448, 8896 N	✓
BMS600900	600 mm x 900 mm x 102 mm	4448, 8896 N	✓
BMS6001200	600 mm x 1200 mm x 102 mm	4448, 8896 N	✓
BMS900900	900 mm x 900 mm x 102 mm	4448, 8896 N	✓

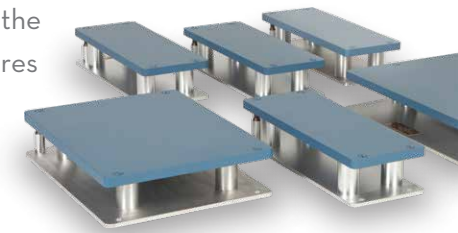
MODULAR RAIL SYSTEM

Modular Rails

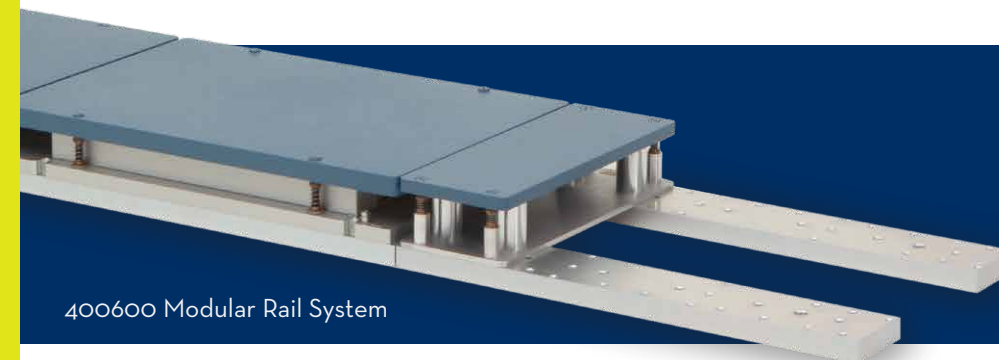
AMTI's through-top mounted force plates can be paired with our extensible modular rail system, giving your lab maximum flexibility for experimental setup and the option for future lab growth.

Filler Plates

Reorganize your platforms with AMTI's filler plates. Quarter, half, and full length filler plates accommodate the spatiotemporal gait measures of different populations.



400600 Filler Plates



400600 Modular Rail System

Easily rearrange your force plates for maximum versatility.

SIGNAL CONDITIONERS

Amplifiers



OPT-SC

The OPTIMA signal conditioner works exclusively with OPTIMA-HPS and OPTIMA-BMS force plates and precision calibration files to provide levels of accuracy never before seen in force plate systems.

GEN-5

The Gen 5 signal conditioner combines with our Special Performance Series (SPS) force plates and multi-axis load cells to provide industry-leading performance and innovative features in an easy-to-use and cost-effective package.



PORTABLE FORCE PLATES



AVAILABLE PORTABLE MODELS					
Model Number	Balance	Gait	Jump/ Weightlifting	Dimensions (WxLxH)	Capacity
AccuSway-O	✓			502 mm x 502 mm x 45 mm	1112 N
AccuGait-O	✓	✓		502 mm x 502 mm x 45 mm	1334 N
AccuPower-O			✓	1016 mm x 762 mm x 125 mm	8896 N
HE6x6	✓*	✓*	✓*	152 mm x 152 mm x 29 mm	4 N, 22 N, 44 N, 71 N, or 89 N

*small animals

Pair the AccuGait-O with our portable walkway to create a mobile gait lab.



SPECIALIZED FORCE PLATES

AVAILABLE SPECIALIZED MODELS		
Model Number	Dimensions (WxLxH)	Capacities Available
SPS464508-GT	464 mm x 508 mm x 97 mm	4448, 8896 N
SPS600900-GT	600 mm x 900 mm x 102 mm	4448, 8896 N
SPS12001200	1200 mm X 1200 mm X 108 mm	4448, 8896 N



INSTRUMENTED EQUIPMENT

Treadmills

AMTI's compact treadmill has two force platforms in either tandem (front and rear) or side-by-side configurations. All of our treadmills can measure the forces of individual limbs during the double support phase of walking gait.

- Incline option available, 25% grade (14 deg)
- Reversible belts for uphill and downhill testing
- Adjustable speed up to 20km/h
- Digital integration with all major motion capture and EMG software



Tandem



Side-by-Side



Force-Sensing Stairs

This removable set of 3 steps attaches to force plates that are embedded in the ground. Isolate forces and moments generated on each step, capturing data from both the front and back foot simultaneously.

Force Sensors

AMTI six-axis force sensors are ideal for research and testing environments due to their high sensitivity, low crosstalk, excellent repeatability, and proven long-term stability. Waterproof models are available.

Available sizes:

25 mm to 1.3 m

Available Force Measuring Capacity:

5 N to 890 kN



AMTI WORLDWIDE

AMTI is committed to advancing science in biomechanics, orthopaedics, and joint implants. As the industry leaders we are passionate about producing multi-axis force measuring systems and joint motion simulators with the highest measuring sensitivity, unsurpassed accuracy, robust durability and user-friendly controls.

AMTI holds many patents in the areas of multi-axis force measurement and joint motion simulation. Our newest innovation, the OPTIMA family of force plates, delivers unsurpassed measuring accuracy-up to 100x better than other platforms on the market. All of AMTI's design, manufacturing, and calibration is done in our US located ISO certified facility. All products carry the CE mark.

Biomechanics researchers and clinicians worldwide rely on AMTI to deliver the most accurate force measurement devices.

The best science begins with the best measurements.



ISO 9001 certified
ISO 13485 certified
ISO 17025 accredited



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INSTRUMENTS Brochure-rev3

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