

**Enhance sports
performance and
prevent injuries**



**Efficient diagnostics:
accurate jump force
measurements are the key**

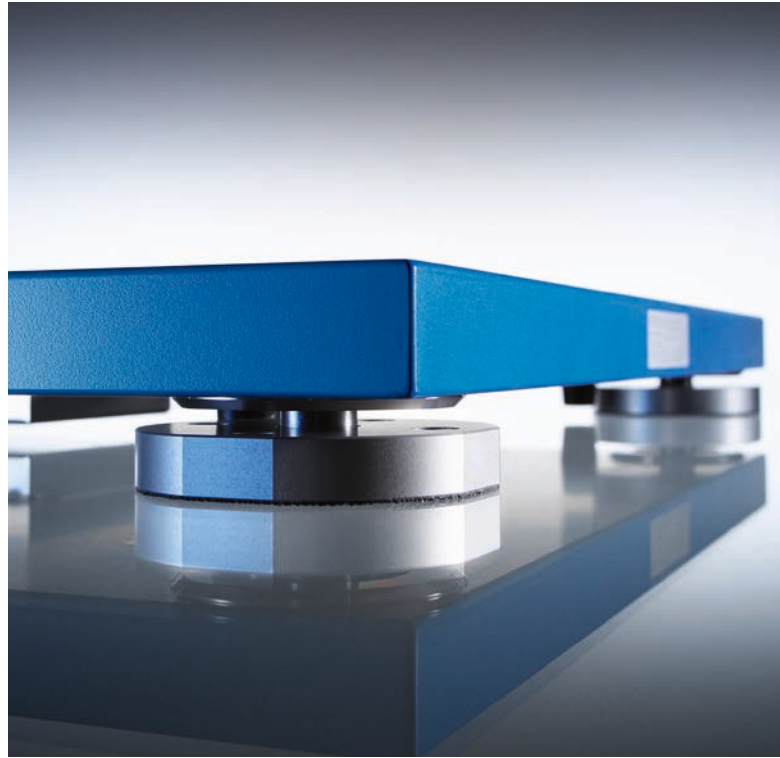
NFL's Jaguars boost their fitness levels with Kistler



Smarter training for success with the MARS force plate system from Kistler

In today's professional sports world, the margin between winning and losing is razor-thin. Athletes need intensive, in-depth preparation so they can realize their full potential. Top performance and successful competition results depend on training programs that are monitored and individually adapted to maximize the benefit for each athlete. Keeping players at the peak of fitness is a key concern for the strength and conditioning staff at the Jacksonville Jaguars, a professional American football team in the National Football League (NFL). The Jaguars recently needed a new, solid foundation for an effective return-to-play (RTP) protocol. The solution: they added the MARS force plate system from Kistler to their training program – and it quickly became a vital factor in the team's success. As well as making the playoffs for the first time in 10 years, the Jaguars also won the AFC South Championship in 2017.

The MARS force plate system from Kistler is a highly effective solution for monitoring athletes' performance and preventing injuries. To secure a winning edge over their competitors in the NFL, the Jacksonville Jaguars' strength and conditioning staff faced a difficult challenge: how to maintain a healthy roster during training camp, in-season, post bye-week, and even offseason? They realized that improved understanding of each player's unique needs is the key to keeping athletes healthy. This calls for intelligent performance analysis equipment that can map and quantify lower limb symmetry, highlighting differences between an athlete's right and left legs. Once the Jaguars had added the MARS force plate system to their strength and conditioning program, the benefits quickly became clear: now, the coaching staff can draw on reliable research and test results to adapt their training methods, boost athletic performance, prevent injuries and make better-informed return-to-play decisions. Thanks to their high precision and long-term stability, the force plates can detect even the slightest changes in an athlete's performance. Aided by



Force plates from Kistler deliver efficient and accurate data on each athlete's health and performance levels.

this intuitive data acquisition system, the coaching staff collect accurate and reliable biometric measurement results as the basis for analyzing and evaluating each athlete's power, strength, balance, and stability.

Staying ahead of the game with strength and conditioning solutions

The Jaguars are constantly researching innovative methods of monitoring and evaluating their athletes throughout the year. Once the team's strength and conditioning staff became aware of the MARS force plate system from Kistler, they were quick to implement it in their training program. Tom Myslinski, the Jacksonville Jaguars' Strength and Conditioning Coach, explained how the system functions in a report in *Men's Journal*: "When each athlete jumps on the force plate, they have a movement signature; and from that jump, we can customize the athlete even further," says Myslinski. "We can see if he's more dominant anteriorly or posteriorly, and how he looks while jumping." The Jaguars' new training protocol gave them many advantages: the MARS force plate system by Kistler made it easy to identify and correct inconsistencies with the help of fast, precision-tailored performance analysis.



"We first heard about Kistler by word of mouth; after some basic research, we found that their force plate was rated as the best on the market. The Kistler force plate is backed by 50 years of research, and it can measure in all three orthogonal directions."

Tom Myslinski, Strength and Conditioning Coach

Based on his extensive experience, Strength and Conditioning Coach Tom Myslinski rates the MARS force plate system above all competitor products on the market. In his view, the MARS platform delivers rapid, targeted biometric evaluations of performance, force, balance, and stability. "We first heard about Kistler by word of mouth; after some basic research, we found that their force plate was rated as the best on the market. The force plate from Kistler is backed by 50 years of research, and it can measure in all three orthogonal directions," Myslinski says. Adaptability is another critical factor. "This is the perfect system for our needs, because we can perform both single-leg and bilateral counter-movement jumps (hopping on one leg), that provide information about jumping, power, balance and stability for each athlete," Myslinski adds.

To prepare their players for a successful season, the Jacksonville Jaguars set two key goals: more effective development of their athletes' performance, and prevention of injuries by identifying inefficiencies due to muscular imbalance and chronic pain. Data supplied by the force plate made it possible to map and quantify each athlete's strength. Myslinski explains: "During the season when we are playing each and every week, we can reassess our athletes every month and compare them to their baseline. This information allows our staff to make real-time changes when athletes return to play after an injury, and they can also detect discrepancies between the right and left legs – not only for injured athletes, but for healthy players as well."

The initial response to testing and data analysis with the MARS force plate system was highly favorable: at last, the coaches had a clear understanding of their athletes' power and limb symmetry. "For instance, we went from measuring just unilateral jumps to countermovement jumps and then squat jumps," Myslinski points out. "We're excited to be working with Kistler as our partner," he adds. "We have an easy working relationship with them, and we're impressed by their service. Now, our team can collect data with the force plate, analyze it with the MARS software and use that information to redesign each athlete's strength program," Myslinski concludes.

Performance analysis with force plate systems from Kistler

Kistler force plates combined with our MARS software offer a highly effective solution for capturing rapid movements and minimal changes in athletes' performance.

Main features

- Great variety of force plates for different applications: portable, fixed or transparent
- Can measure one single force or all three orthogonal forces
- Easy-to-use MARS software with modular functionalities
- Precise and reliable measurement thanks to piezoelectric technology
- One-click performance report

Your benefits

- Frequent, fast assessments of athletes' performance, including graphic evaluation
- Enhanced performance, fewer injuries
- Easy comparisons of individual athletes' fitness development
- Continuous system development and responsive service by Kistler



Fit for success: the Jacksonville Jaguars optimize their training with the MARS force plate system from Kistler.

KISTLER
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Take the lead – right from the start

Biomechanics
Early measurement solutions for motion analysis, sports performance diagnostics, rehabilitation and ergonomics

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Brake force measurement in the rail transport sector
Sensors and accessories for periodic brake force testing

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Measuring equipment for demanding T&M applications

Test & Measurement
Sensors and signal conditioning systems

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Measuring combustion dynamics improves turbo-machinery performance

Analyzing and commanding sophisticated machining processes

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