U.S. ARMY TESTING SHOWS IPERIONX TITANIUM FASTENERS EXCEED GRADE 8 STEEL TORQUE-TO-YIELD PERFORMANCE

U.S. Army DEVCOM GVSC and independent WMTR testing demonstrate high-strength steel-benchmark performance for IperionX Ti-6Al-4V fasteners, supporting U.S. defense industrial-base resilience and lightweighting initiatives

HIGHLIGHTS

- **Independent, third-party product-level validation:** Testing completed by the U.S. Army Combat Capabilities Development Command (DEVCOM) Ground Vehicle Systems Center (GVSC) and Westmoreland Mechanical Testing & Research (WMTR) validates the performance of IperionX titanium fasteners manufactured with advanced patented titanium technologies
- **Torque-to-yield performance above Grade 8 steel**: IperionX 3/4-10 x 3.0-inch titanium Ti-6Al-4V fasteners demonstrated yield torque of 563 to 615 ft-lbf in U.S. Army DEVCOM GVSC testing, compared with approximately 480 to 502 ft-lbf for SAE Grade 8 steel fasteners. Based on the midpoint, the IperionX result was nearly 20% above the high-strength Grade 8 steel benchmark
- **Lighter, stronger titanium fasteners with repeatability**: Across independent 3/8-16 x 1.0-inch testing, IperionX titanium fasteners achieved average yield torque greater than high-strength Grade 8 steel fasteners, with three of five titanium fasteners not yielding at the U.S. Army strength test protocol limit
- **Independent tensile results exceed aerospace-grade titanium benchmarks:** WMTR tensile testing under ASTM F606/F606M-25a on IperionX 3/4-10 titanium fasteners, confirmed 135 to 137 ksi yield strength and 149 to 152 ksi ultimate tensile strength - ~15% above the industry standard for aerospace-grade titanium fasteners
- **Fully domestic, secure U.S. titanium supply chain:** The results support IperionX's patented manufacturing technologies for high-value, performance-critical finished titanium components for defense, aerospace, marine and advanced industrial applications

IperionX CEO Taso Arima said:

“These results represent a key independent validation milestone for IperionX’s high-performance titanium fasteners manufactured with our advanced patented titanium technologies.

High-strength titanium fasteners are a large-volume repeat-order component category across defense, aerospace, marine and industrial platforms, where weight reduction, corrosion resistance, lifecycle performance and supply assurance are strategically important.

Testing completed by the U.S. Army DEVCOM GVSC showed IperionX titanium fasteners delivered higher torque-to-yield performance than high-strength Grade 8 steel fasteners, and independent WMTR testing confirmed high-strength steel-benchmark tensile performance.

Notably, IperionX titanium fasteners exceeded the U.S. Army’s test limits and required substantially higher torque ranges to determine yield performance.

These successful independent test results highlight our progress in building an all-American titanium supply chain that can support U.S. defense, aerospace and advanced industrial sectors.”

IperionX Limited (NASDAQ: IPX, ASX: IPX) (IperionX) is pleased to announce positive titanium fastener test results from independent testing programs completed by the U.S. Army DEVCOM Ground Vehicle Systems Center (GVSC) and Westmoreland Mechanical Testing & Research (WMTR).

The testing programs evaluated titanium fasteners produced using IperionX patented technologies against comparable high-strength SAE Grade 8 steel fasteners currently used in demanding defense and industrial applications. The results demonstrate that IperionX titanium fasteners can deliver high-strength steel-benchmark mechanical performance while retaining the weight-reduction and corrosion-resistance advantages associated with titanium.

Performance results

U.S. Army DEVCOM GVSC completed torque-to-failure and torque-tension testing on IperionX 3/8-16 x 1.0-inch and 3/4-10 x 3.0-inch titanium Ti-6Al-4V fasteners, comparing their performance against conventional high-strength Grade 8 steel fasteners and aerospace grade titanium fasteners used in demanding industrial and defense applications.

In the 3/4-10 fastener test program, IperionX titanium fasteners did not yield at the initial test limit established for high-strength Grade 8 steel. GVSC subsequently increased the test range to determine titanium fastener yield behavior. IperionX titanium fasteners demonstrated yield torque of 563 to 615 ft-lbf, compared with 480 to 502 ft-lbf for high-strength Grade 8 steel fasteners under the same test program.

In the 3/8-16 fastener test program, IperionX titanium fasteners successfully achieved average yield torque above high-strength Grade 8 steel fasteners. Three of five IperionX titanium fasteners did not yield at the initial Army test protocol limit.

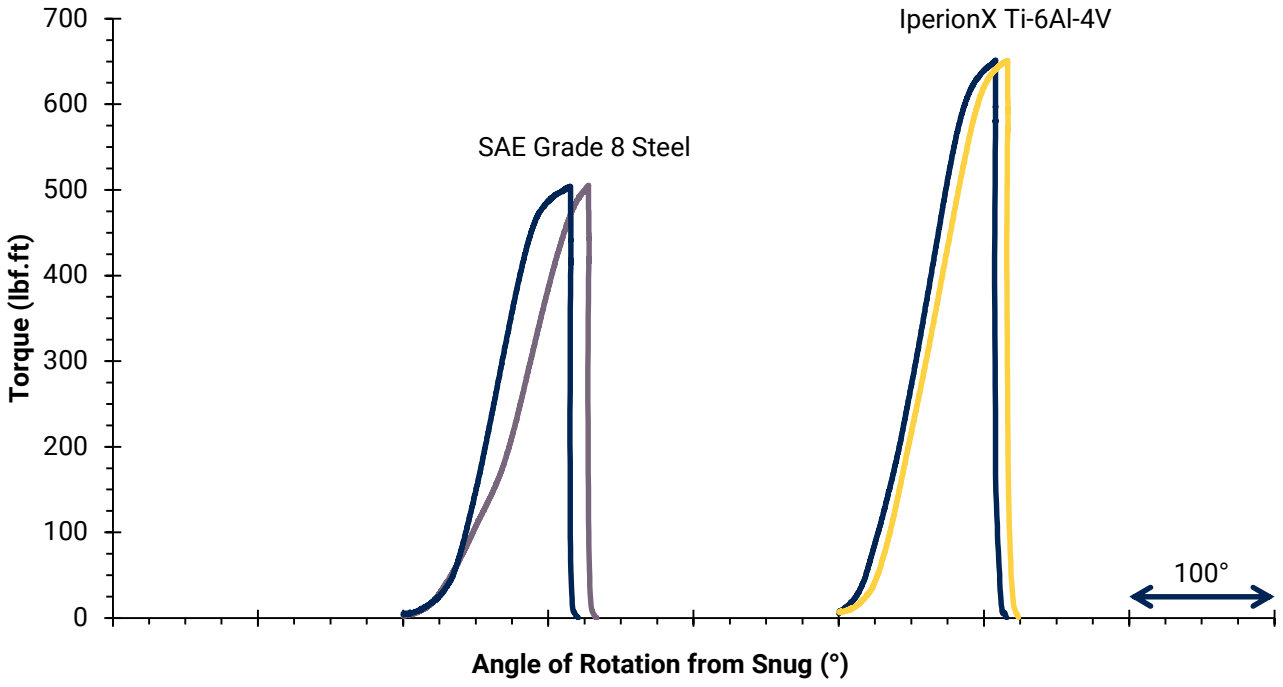

Figure 1: Representative 3/4-10 x 3.0-inch torque-to-yield data from commercial Grade 8 steel and IperionX Ti-6Al-4V fasteners.

Independent tensile strength testing

WMTR completed ASTM F606/F606M-25a tensile testing on IperionX 3/4-10 x 3.0-inch Ti-6Al-4V titanium fasteners. IperionX titanium fasteners achieved 135 to 137 ksi yield strength and 149 to 152 ksi ultimate tensile strength, above typical aerospace Grade 5 titanium fastener benchmarks and at, or above, key high-strength Grade 8 steel fastener benchmarks.

Fastener Type	Typical min. yield strength (ksi)	Typical min. ultimate tensile strength (ksi)
ASTM F468 Grade 5 Titanium Fasteners	120-130	130
SAE Grade 8 Steel Fasteners	130	150
IperionX Titanium Fastener Test Results	**135-137**	**149-152**

Table 1: Independent tensile testing summary

Fastener Type	Typical min. torque yield point (Ft.lbf)
SAE Grade 8 Steel Fasteners	478
IperionX Titanium Fastener Test Results	**563-615**

Table 2: 3/4-10 torque testing summary

Commercial relevance for defense and aerospace supply chains

Titanium fasteners are a high-volume, high-value repeat-purchase category across aerospace, defense, marine and industrial applications where corrosion resistance, weight reduction and high-strength performance are critical.

Titanium Ti-6Al-4V is typically 40% to 45% lighter than steel and delivers strategic lightweighting for increased payload capacity, heavier armor allowances and extended operational ranges. However, widespread use of titanium fasteners has been constrained by cost, availability and the ability to produce low-cost, high-performance fasteners at scale.

The test results are strategically important because they support a pathway for titanium fasteners to address applications where high-strength mechanical performance, lower component weight, corrosion resistance and secure domestic supply are vital for customers.

The successful program supports IperionX's strategy to build an end-to-end U.S. titanium supply chain for lower-cost titanium products for the defense industrial base and U.S. Army development activities for ground vehicles. IperionX's titanium manufacturing platform offers a secure domestic source of high-performance titanium components aligned with U.S. priorities on defense industrial-base resilience, supply assurance and advanced manufacturing capability.

Proprietary technology advantage

IperionX's proprietary HSPT™ and THRM™ technologies convert titanium powder into high-performance titanium components with refined microstructures and mechanical properties suitable for demanding applications.

The U.S. Army and independent testing results validate IperionX's patented titanium powder-to-product manufacturing platform. They highlight that IperionX high-strength titanium fasteners can exceed titanium industry strength benchmarks and compete with high-strength steel thresholds while retaining titanium's exceptional weight and corrosion-resistance advantages.

This announcement has been authorized for release by the CEO and Managing Director.

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About IperionX

IperionX is a leading American titanium metal and critical materials company – using patented metal technologies to produce high performance titanium alloys, from titanium minerals or scrap titanium, at lower energy, cost and carbon emissions.

Our Titan critical minerals project is the largest JORC-compliant mineral resource of titanium, rare earth and zircon minerals sands in the United States.

IperionX's titanium metal and critical minerals are essential for advanced U.S. industries including space, aerospace, defense, consumer electronics, automotive and additive manufacturing.

Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, the Company's ability to comply with the relevant contractual terms to access the technologies, commercially scale its closed-loop titanium production processes, or protect its intellectual property rights, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.