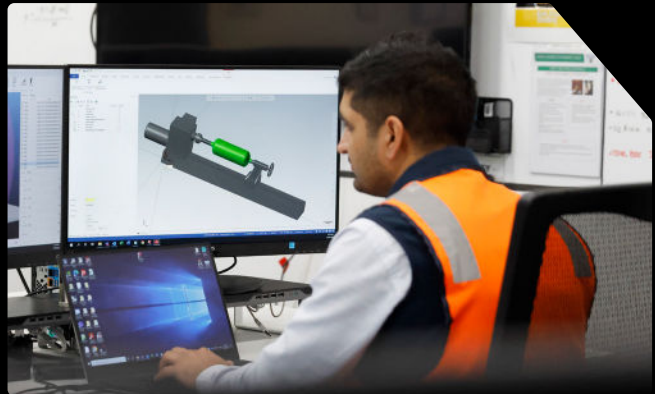




C O L D S P R A Y F O R Higher Education

Titomic Kinetic Fusion™ (TKF)™ cold spray technology solutions are specifically designed for higher education, empowering vocational students, researchers, and instructors to cost-effectively incorporate this innovative metal deposition technology into their curriculum, enhancing both education and research capabilities.



WHAT IS TKF™ COLD SPRAY?

TKF™ cold spray is an advanced metal deposition technique that allows for the bonding of metal particles to a substrate without melting. This process is conducted at supersonic speeds, where metal powders are accelerated and deposited onto a surface to form a coating or repair.

The key advantage of cold spray is that it maintains the integrity of the substrate, enabling unique restoration and resurfacing capabilities that other methods cannot achieve.



COLD SPRAY PACKAGES

Titomic offers a range of packages tailored to educational institutions, providing everything from entry-level setups for vocational training to advanced systems for research-intensive environments.



EDUCATION PROGRAM INCLUSIONS

TKF™ 523 STANDARD

The TKF™ 523 is Titomic's portable, compact cold spray system, designed for versatility and ease of use. It's capable of depositing a broad range of metals and is currently utilized by universities, military organizations, and industries ranging from aerospace to defense, oil and gas, mining, marine, and beyond.

TKF™ 623 STANDARD

The TKF™ 623 is the next-generation of Titomic's portable cold spray systems. The TKF™ 623 is a medium-pressure system, enabling faster deposition rates, pressurized powder feeding, and deposition of harder materials such as stainless steel, with many more metals in development.

BENEFITS

- No heat deposition:** Deposits metals without heat, preserving the properties of the substrate.
- Wide metal compatibility:** Capable of depositing a broad range of metals, from aluminum to zinc.
- User-friendly design:** Simple, safe, and easy to operate.
- Safe operation:** Produces no harmful gases and particles do not exceed melting temperature.
- No special certification required:** Operate without needing a certification or license.
- Intuitive functionality:** Designed for ease of use with a straightforward interface.
- Simple integration:** Minimal to no refurbishment of facilities and operations.

Aluminum

Copper

Nickel

Gold

Platinum

Inconel 625

Stainless steel

Other alloys

Zinc

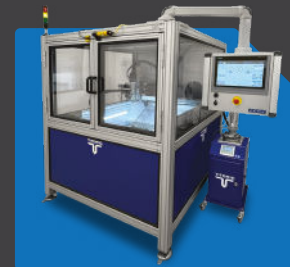
Tin

Babbitt

Silver

Linear table with XYZ automated operation

This table has a X, Y gantry system designed for linear operations with the TKF™ 523 or TKF™ 623 cold spray systems. This robotic platform enables repeatable and reliable cold spray operations, whether for metal coatings, component repairs, or other secondary manufacturing tasks.



Greater process control & efficiency

Titomic's turnkey integrated spray booth (ISB) systems bring together low-to-medium pressure cold spray, handling and dust extraction, and can be customised to your specific needs. Can be manufactured containing a TKF™ 523 or TKF™ 623 spray head as needed.

KEY BENEFITS OF TKF™ COLD SPRAY



Versatility in metal deposition

Cold spray allows for the deposition and fusion of a wide range of metals, including those that are difficult to work with using traditional methods.



Preservation of substrate integrity

The substrate remains unchanged during the cold spray process, making it ideal for restoring and resurfacing without compromising the original material.



Custom alloy combinations

Design and blend unique metal alloy combinations to meet specific research and development needs.

TKF™ COLD SPRAY FOR EDUCATION



Advanced manufacturing training

Equip vocational students with hands-on experience in cutting-edge technology increasingly used in advanced manufacturing sectors.



Accelerated learning

TKF™ cold spray technology is easy to operate and learn, allowing students to become proficient in just hours.



Innovative research opportunities

TKF™ cold spray opens new avenues for student-led research, leading to novel publications and contributions to the field of material science.



Interdisciplinary development

The versatility of TKF™ cold spray supports research and development across multiple faculties, including fitting and turning, physics, metallurgy, engineering, and beyond.



Metal Powders to Get Started

Titomic offers a broad range of metal powders—including copper, zinc, aluminum, and various alloys—sourced through a secure global supply chain. To support your operations, a selection of these feedstocks is provided at no additional cost with your purchase.



Personal Protective Equipment

Titomic ensures the safe operation of the TKF™ 523 by providing all necessary Personal Protective Equipment (PPE). This includes protective gloves, a full-face powered particulate protection system, and heavyweight coveralls.



Installation and Training

Titomic offers comprehensive onsite installation and training for your instructors, covering all aspects of machine operation, safety protocols, troubleshooting, and the fundamentals of cold spray technology.

BENEFITS

Diverse metal feedstocks

Access a broad range of metal powders, delivered worldwide at competitive prices.

Comprehensive support

Titomic also offers a complete range of replacement parts and accessories.

BENEFITS

Certified safety gear

Ready-to-use certified PPE specified for cold spray operations.

Enhanced protection

Protection against particulates for a safer work environment.

BENEFITS

Expert installation

Installation and training delivered by Titomic's experienced staff.

Comprehensive training

End-to-end training to ensure safe and effective cold spray operations.

Ongoing support

Continued assistance, including additional training and cold spray insights.

EQUIPMENT INCLUDED WITH THE TITOMIC EDUCATION PROGRAM

PACKAGE	STARTER	PRO	ELITE
TKF™ 523 Standard	✓	✓	—
TKF™ 623 Standard	—	—	✓
Your choice of included metal powders (kilograms)	5	8	12
PPE	✓	✓	✓
Downdraft dust extraction table	—	✓	✓
Linear table with automated robotic operation	—	✓	✓



Transportation



Defense



Aerospace



Mining & Energy



Oil & Gas



Marine



Manufacturing

Don't miss out on this exclusive opportunity
for higher-education providers.
Get in touch with the team today.

TITOMIC

Manufacturing **new possibilities**

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Conditions apply. Visit titomic.com/disclaimer for further information.
V3 Published 05/11/2026

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