



VERTEX KEG

ENGINEERING IN
STAINLESS STEEL
AT ITS PEAK



30% LIGHTER*, 30% GREENER*, 100% STAINLESS STEEL

INVEST IN A GREENER FUTURE WITH EXPERTISE YOU CAN TRUST

THIELMANN R&D is at the cutting edge of sustainable design.

Our engineering experts have developed a never-before-seen technique to mold duplex stainless steel, a material previously thought to be too rigid to manipulate at this scale. The result is **a keg that is up to 30% lighter, with up to 30% lower environmental impact, without compromising mechanical strength.**

This achievement sets a new standard in sustainable engineering. And, with its lower nickel content, the material is less vulnerable to market fluctuations, ensuring your financials are as sustainable as your operations.

The VERTEX keg is built to last the test of time, even under heavy-duty use. Its fully inert and 100% UV-resistant body ensures your beverage stays fresh and flavorful throughout its journey. Then, once the keg comes to the end of its usable life, the material is 100% recyclable.

These attributes underscore THIELMANN's commitment to environmental responsibility and outstanding quality, creating a keg that represents the peak of engineering in stainless steel.

FEATURES

- **Innovative Material:** High-performance duplex stainless steel
- **Lighter Construction:** Up to 30% lighter than traditional kegs
- **Ergonomic Design:** Proven to reduce the chance of injury by at least 10 to 15%
- **Greener Choice:** Up to 30% lower environmental impact via optimized material use
- **Same Strength:** Mechanical resistance equal to conventional kegs
- **Enhanced Corrosion Resistance:** Duplex steel offers better corrosion resistance than AISI 304
- **Proven Sustainability:** Lifecycle analysis conducted by Leitat Spain

**Up to 30%, depending on the model and compared to current standard stainless steel kegs.*

VERTEX, THE WORLD'S FIRST AND ONLY DUPLEX STAINLESS STEEL KEG

A GAME-CHANGER FOR THE BEVERAGE INDUSTRY

Duplex stainless steel is a premium alloy that offers exceptional resistance to corrosion, high mechanical strength, and durability. Its ability to withstand extreme environments without compromising structural integrity has made it a go-to choice for large storage tanks and pressure vessels in chemical processing, oil and gas, and marine engineering.

THIELMANN R&D's groundbreaking innovation has brought this high-performance material to the beverage industry. By developing a technique to mold duplex stainless steel and weld ultra-thin seams, THIELMANN can manufacture beverage kegs that combine reduced weight and enhanced sustainability with the superior strength of duplex stainless steel.

- **LIGHTWEIGHT & SUSTAINABLE:** The VERTEX keg is up to 30% lighter and up to 30% greener than a traditional keg, making it easier to handle and transport while significantly reducing environmental impact.
- **STRENGTH & DURABILITY:** Engineered with duplex stainless steel, the VERTEX keg maintains exceptional mechanical strength, ensuring it can withstand the demands of heavy-duty use over a long service life. It also offers superior corrosion resistance.
- **EASY HANDLING:** Extensive testing carried out according to Spain's National Institute of Safety and Hygiene at Work (INSHT) shows the VERTEX keg's ergonomic design reduces the risk of musculoskeletal injuries by at least 10 to 15%.
- **PRICE STABILITY:** The VERTEX keg's lower nickel content helps mitigate the impact of price fluctuations in the global market, providing greater cost predictability.
- **PRODUCT FRESHNESS:** Its fully inert and 100% UV-resistant body guarantees that your beverage stays fresh and flavorful throughout its journey.
- **ECO-FRIENDLY END-OF-LIFE:** Demonstrating a commitment to sustainability, the VERTEX keg is 100% recyclable at the end of its lifecycle, contributing to a circular economy.

DETAILED LCA RESULTS

The **Life Cycle Assessment (LCA)** demonstrates that the 30L duplex steel keg outperforms the 30L AISI 304 stainless steel keg in all measured sustainability metrics.

- **Reduced CO2 Emissions:** 0.59 kg less CO2 per keg in production
- **Fossil Fuel Savings:** 9.1 megajoules less fossil fuel consumption
- **Water Savings:** 0.12 cubic meters less water used in production
- **Recycling Benefits:** End-of-life recycling significantly reduces the overall environmental impact
- **Robust Across Variables:** Sensitivity analyses confirm that environmental advantages hold even with variations in keg lifespan, manufacturing, or recirculation processes

**VERTEX is a THIELMANN project in development. Final weights and consumptions may vary based on the specific project and model.*

WHY THIELMANN?

- **A RELIABLE AND COMPETENT PARTNER.** Customer expectations are always our priority, which is why we foster a close collaboration with each and every client, adapting our service to their needs.
- **THE SOLUTION FOR EVERY BEVERAGE.** Thanks to our deep understanding of complex industry requirements, we are able to manufacture high-quality, fully customized container solutions.
- **SUSTAINABLE IN EVERY SENSE.** A company that's environmentally sustainable is economically sustainable. THIELMANN consistently invests in sustainability to be greener, leaner, and better run.
- **AT YOUR SERVICE ALL OVER THE WORLD.** With a global presence and solid network, THIELMANN expertise is never far from where you are.