WATER-BASED VS. FORCED-AIR WARMING IN THE OPERATING ROOM

A Technology Comparison

Maintaining precise patient temperature during surgery is a critical component of interoperative care. While forced-air systems are common, **Water-Based Targeted Temperature Management (TTM)** provides a level of clinical control and environmental safety designed specifically for the rigorous requirements of the operating room.

Feature	Altrix: Water-Based Precision Temperature Management	Forced-Air Warming Systems
Technology type	Utilizes isolated disposables to deliver consistent, conductive thermal therapy.	Uses blowers to move warmed air through disposable, perforated blankets.
Precision & Control	Designed for controlled or rapid warming, with active cooling available for more complex cases. In Auto Mode, it maintains steady patient temperature within ±0.1°C.[1]	Designed for general heat delivery; often lacks integrated active cooling for precise thermal balance.
Sterile Field Integrity	Reduces the potential for air currents to move floor particulates toward the surgical site.[2]	Forced-air blankets can disrupt unidirectional/laminar airflow patterns in the OR.[3]
Clinical Access	Blanket allows surgical access while maintaining continuous therapy. Wraps also available for added versatility.	Access often requires adjusting or opening blankets, leading to rapid convective heat loss.[4]

Altrix®

The Altrix® Advantage: Precision & Efficiency

Altrix is a water-based solution engineered for the high-standard interoperative environment.

- **FDA-validated system** designed to prevent aerosolization of bacteria from the internal water system to the environment.
- **Closed-loop, leak-resistant design** prevents environmental contaminants and biofilm buildup while promoting a dry, safe OR environment
- **Eliminates forced air movement**, supporting undisturbed laminar flow and surgical site protection.
- **Dual-Thermal Control** Integrated heating and cooling with real-time feedback for consistent thermal stability.

Altrix®

Operational Efficiency

- **14-Day Performance:** Blankets and wraps are validated for single-patient use up to 14 days,.
- **3-Year Shelf Life:** Extended storage capability minimizes waste and simplifies inventory management.

Learn More

Let's connect and explore how **Altrix Precision Temperature Management** supports safe, controlled temperature management in the Operating Room.

TALK TO A PRODUCT SPECIALIST

Selected References

[1] Sessler DI. Anesthesia & Analgesia. / AORN Guidelines.
[2] Shirozu K et al. Anesthesiology. 2018.
[3] Dasari KB et al. Anaesthesia. 2012. / Legg AJ et al. Bone & Joint Journal. 2013.
[4] AORN Guidelines for Perioperative Temperature Management.