

1. Purpose of this Informational Note

The purpose of this note is to provide distributors with a clear and accurate understanding of the ZAMAR closed-circuit liquid system, specifically regarding fluid management, occasional refilling requirements, and the concept of micro-evaporation.

It aims to:

- clarify that the fluid is not consumed during normal operation
- explain the conditions under which refilling may be required
- support correct communication with end users
- prevent misunderstandings related to system functionality and maintenance

This information is intended to ensure consistent, transparent, and technically accurate messaging across all markets.

2. Technical Overview of the Closed-Circuit Liquid System

ZAMAR devices are designed with a **closed-circuit liquid system**, meaning that the thermal fluid is **not consumed during normal operation**.

Unlike traditional systems using ice or water, there is **no need to fill, replace, or dispose of liquids**. The fluid remains within the circuit and is used exclusively as a heat exchange medium.

A small internal reservoir is integrated into the device and may require refilling **only when indicated by a system alert**.

This is not due to actual fluid consumption, but rather to **automatic volume compensation within the circuit**.

During the initial phase of use, the pads—being highly flexible—may slightly increase their internal volume.

As a result, the system may draw a small amount of fluid from the reservoir to adapt to this condition.

This behavior:

- may lead to slightly more frequent refilling during early use
- is **temporary**
- typically stabilizes after approximately **10 treatment sessions**, after which refilling becomes **significantly less frequent**

An additional aspect to consider is **micro-evaporation**.

This is a **minimal and physiological phenomenon**, occurring primarily when pads remain unused for extended periods (e.g., storage conditions).

Counterintuitively:

- **the more frequently the pads are used, the lower the micro-evaporation effect**
- regular use contributes to overall system stability

This design ensures:

- continuous operation without interruption
- maximum hygiene (**no contact with external water, contaminants, or potential mold**)
- no routine fluid management during normal use

3. Conclusion

In summary, the ZAMAR closed-circuit system is designed to ensure maximum efficiency, reliability, and ease of use, eliminating the need for continuous fluid management.

The thermal fluid is not consumed during operation, as it remains within a sealed circuit and is used exclusively for heat exchange. Any occasional refilling is not related to consumption, but to automatic volume compensation and minimal, controlled micro-evaporation, which primarily occurs during extended periods of non-use.

During the initial phase of pad usage, the system may require slightly more frequent refilling due to its natural adaptation to pad flexibility; however, this condition stabilizes quickly, and refilling becomes infrequent over time.

Overall, the system provides a clean, stable, and low-maintenance solution, ensuring consistent performance while preventing exposure to external water, contaminants, or potential mold.

This results in a highly reliable and user-friendly platform, designed to support continuous operation with minimal intervention from the user.

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