LabARMOR™

Compatibility of Lab Armor Beads with Non-Lab Armor Baths

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Symptoms

When converting a third party water bath into a bead bath by adding Lab Armor Beads, the water bath must heat to the set temperature and maintain a constant temperature. The designs of some baths make them incompatible for use with Lab Armor Beads.

Products Affected: Lab Armor Beads for use in third-party water baths

Problem

1. Shallow form baths – Moving air wicks heat away from the surface of Lab Armor Beads. Routine removal of the bath's lid during normal operations produces too much heat is loss. There is insufficient thermal mass in 1-2 inches of Lab Armor Beads for the bath to optimally recover.

2. Deep Tub Water Baths – Water baths with tub depths greater than approximately 8 inches are usually incompatible with Lab Armor Beads. The location of the heating element and its proximity to the thermostat is often too great, which causes the element and beads to overheat. The over temperature control unit of the bath may shut off the bath, or sometimes the bath will continuously cycle between temperatures above and below the set point.

3. Circulating Water Baths – Mechanical water pumps are not compatible with beads.

4. Shaking Water Baths – General mechanical movement is not compatible with beads.

Known Incompatible Water baths

1. Julabo – SW and TW series
Dry-running protection system interferes with bead bath set up and prevents continuous operation.

Known Compatible Water baths

1. **Thermo-Fisher Scientific** - Isotemp and Precision series

2. **Precision Scientific** – all general purpose series

3. **PolyScience** – all general purpose series

4. **Grant Instruments** – all general purpose series

5. **VWR** – all general purpose series

6. **Sheldon Manufacturing** – all general purpose series

7. **Lab Companion** – all general purpose series

8. **New Brunswick** – all general purpose series

9. **Lab-Line** – all general purpose series

10. **Buchi Heating Baths** – all general purpose series

11. **Boekel** – all general purpose series