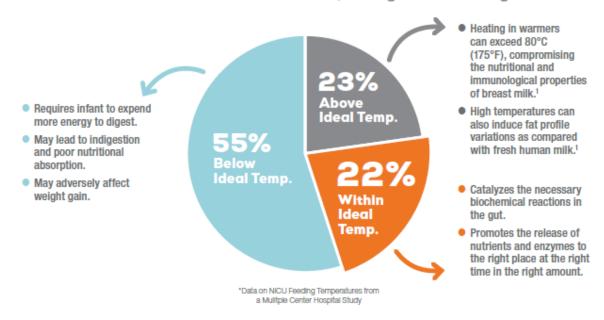


At Ameda, we recognize the importance of feeding breast milk and/or human milk fortifiers within the normal human physiological temperature range in order to catalyze the necessary biochemical reactions in the gut of the baby which promotes the release of nutrients and enzymes to the right place at the right time in the right amount.

The ideal temperature of breast milk should match our natural human physiological temperature between 90°F - 100°F, which is the same temperature mother's milk is delivered to the infant directly through breastfeeding.



- 1. Regardless of the starting temperature of the feedings, the Penguin will always deliver within the ideal human physiological temperature between 98°F-100°F
- 2. The feedings will never be exposed to higher temperatures that are inappropriate for breast milk (higher than 38°C)



Why water-based warmers are better

## How does Penguin do it?



- 1. Penguin warms based on 360° all-around distribution of low heat
- 2. The Penguin is temperature based and not time based. Uses proprietary software and temperature feedback sensor technology. There are components on the well of the Penguin called Thermistor Thermal-Tab and Thermocouple Thermal-Ribbon that offer extremely sensitive temperature tracking for applications with even a small temperature change. Most hot air based warmers are pre-programmed, countdown systems based on averages and assumptions as opposed to being based on temperature feedback loop.
- Penguin also leverages the thermal exchange property of water. As you know, water is a
  much better conductor of heat than dry air because of which the Penguin enables use of low
  heat for a more safe, even and consistent heating
- 4. A "closed system" Therma-Liner bag acts, both, as a buffer against direct exposure to heat and keeps the feeding safe in an isolated compartment.
- 5. Because water is more efficient than air, it uses less energy since the warming system won't need cooling elements.
- 5. Because Penguin does not need cooling elements like a noisy fan, it is also much quieter, appropriate for a NICU environment.
- 6. Penguin also has an auto shut off feature. Once the feeding has reached ideal temperature, the system goes into a "hold" mode for 30 minutes. In this phase Penguin just maintains the ideal temperature for 30 minutes before auto shut off. This allows for better time management and better prioritization of bed side care by staff and care givers.
- 7. The Penguin can be customized per your institutions preferred practices.
- 8. For clear indication, the Penguin has a very intuitive display and messaging to keep staff informed at every stage of the warming process.
- 9. Our patented jacketed pouch with a "bag-in-bag" design is designed as a closed system to keep feedings safe and prevent any potential contamination from water.
- 10. Constant gentle vibration makes sure to mix the feedings throughout the warming cycle, eliminating the need to shake or roll the breastmilk. Shaking or rolling might break the fats and lipids and potentially degrade the nutritional integrity of the breast milk.

Contrary to popular notion about water-based warmers, because of the reasons above, the Penguin offers a much more controlled and safer method of heating using thermodynamic capabilities of liquid-to-liquid heat transfer.

## The Penguin guarantees every feeding within the ideal human physiological temperature range of 98°F-100°F











Gentle vibrating technology mixes feedings through out the warming cycle, eliminating the need to shake or roll it, thus maintaining the nutritional integrity of breast milk.

