KINSECT

K-CONTINUOUS PRODUCTION CAGE

It is a Turn-Key BSF Breeding Module based on a monoblock Climate Room equipped with a HVAC, mating lightening system and dedicated sliding rails as egg-collector support.

Application

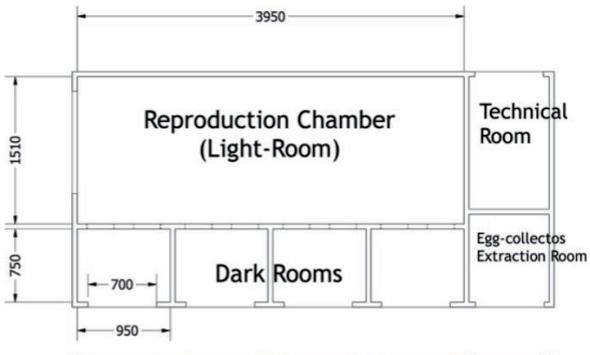
Conceived for large breeding operations, the cage arrives fully finished at the customer's location. It is designed for ease of operation and requires minimal manpower, achieving low operational costs.

Solution Components

The monoblock Climate Room consists of a primary Light-Mating-Room, four small Pupae-Dark-Rooms, an Eggs-collector extraction room, and a dedicated technical room. It is equipped with a HVAC system to maintain precise temperature and humidity levels.

Key Dimensions

External Size	**5,0 x 2,4 x 2,4 (h) m**
Total Volume	**28,8 m3**
Flying Volume	**11,7 m3**
Resting Fly Area	**Around 25 sqm**
Insulation	**50mm thermo insulated wall panels**
Prefab Cell Framework	**Steel frame for easy transport**

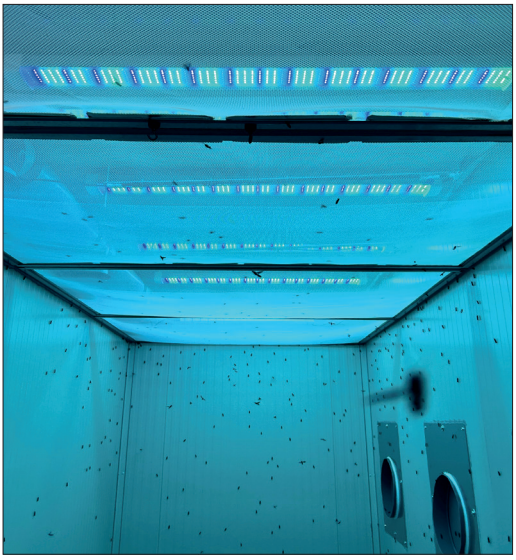


Production Performance

Output	**80 to 220 grams/day (continuous)**
Input	**Pupa weight range from 20 to 60 Kg**
Optimal Fly Density	**250,000 / 300,000 flies**
Daily Nebulized Water	**0,5 - 1,5 litres**
Mating Lighting	**~600 Watts (running 10h/day)**

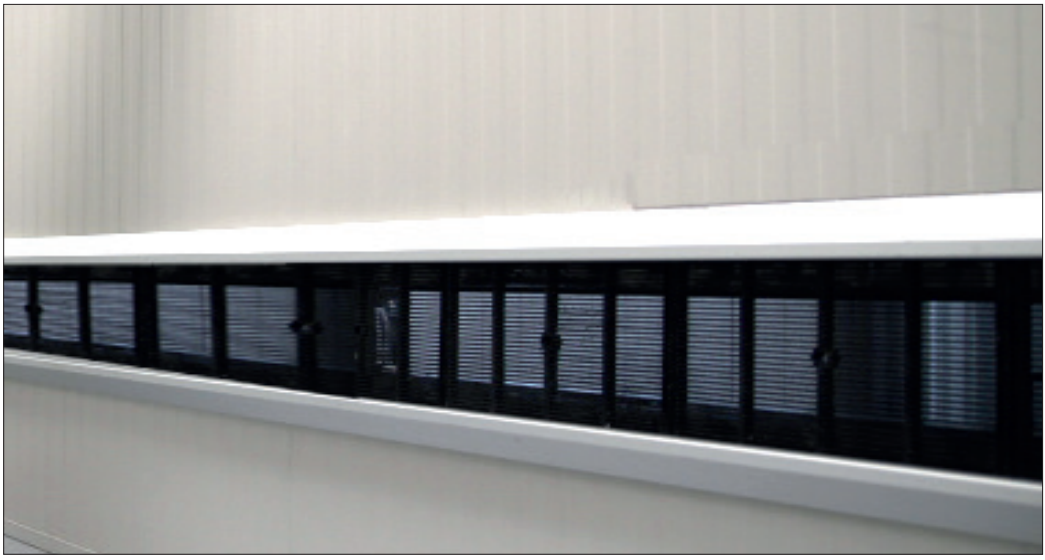
Maintenance and Cleaning

Recommended cleaning with water vapor every three months. Production does not need to be stopped; an operator with a wireless vapor device can complete the task in under an hour.
A simple monthly visual inspection of the HVAC system, wiring, and piping integrity is required.



A biosecurity net keeps flies within a designated area, far from key cage components, avoiding malfunctions and potential escapes

Smart access meets superior protection. The high-durability U-zip transparent access provides an impenetrable seal while allowing seamless entry for maintenance and operations.



Our oviposition system offers a superior alternative to traditional materials.
Its high-grade, non-deformable plastic ensuring dimensional stability over time.

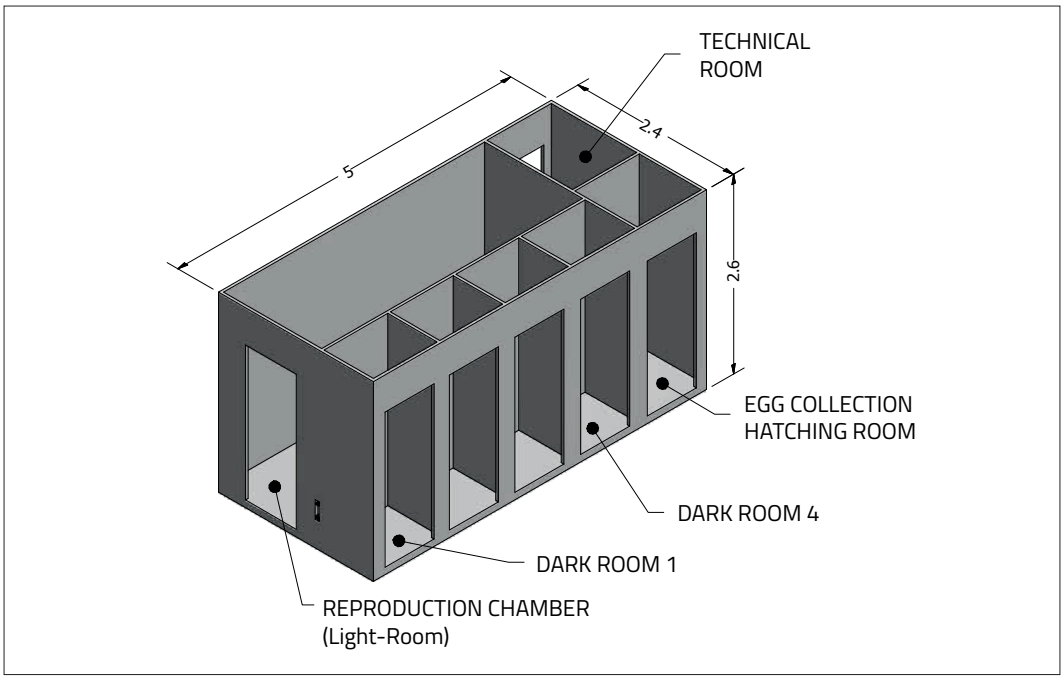


diagram lay-out - one cage

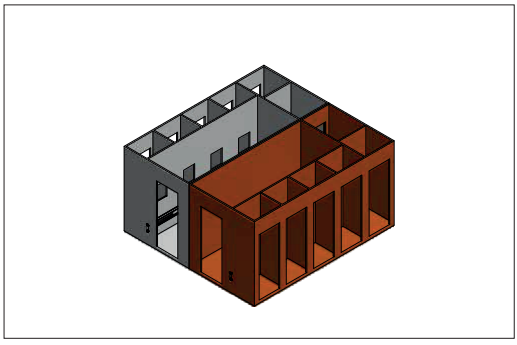


diagram lay-out - two cage

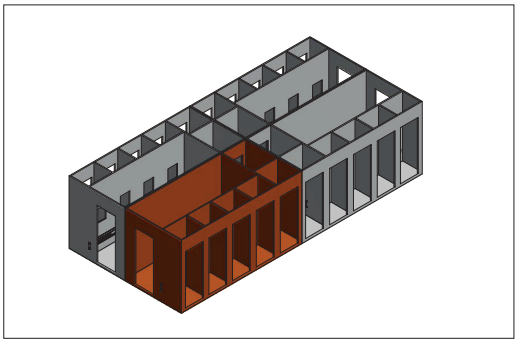


diagram lay-out - four cage

Product diagram and scalability diagram

Maximize your output, minimize your footprint. Our modular breeding system is designed for total flexibility: start with one unit and easily scale up to four or more. The integrated technical corridor provides a continuous backbone for utilities, significantly reducing space requirements and streamlining maintenance.

Working Principle

Pupae are loaded weekly into darkrooms in boxes arranged in piles. After 4 weeks, the first room is cycled. Egg collectors along the light-room are accessed from two sides and removed every 1-2 days. The system simulates the natural BSF environmental conditions automatically to trigger reproduction.

Requirements and Utilities

The K-CAGE is optimized to ensure efficient and predictable breeding cycles, maximizing egg production sustainably. The integrated design supports a continuous workflow, facilitating the monitoring and management of each phase of the cycle.

Infrastructure	**Roofed barn or building with a levelled floor.**
Electrical Grid	**220V 50-60Hz (Max 3 Kw)**
Water network	**Softened water, 5 litres/h at 2 bars**

Operational Conditions

Optimized for 28 °C and 60% RH. Equipped with K-Mating-Lights, K-Humidity-Kit and K-HVAC-System.

Customer Profile

- Small-medium scale breeding operations
- Large scale industrial breeding operations

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