



Big Dutchman®



UNIVENT Parents-AI

The modern broiler breeder housing system
for artificial insemination

UNIVENT Parents-AI – the cage system for broiler breeders in artificial insemination (AI) programs

With **UNIVENT Parents-AI**, Big Dutchman can offer a housing concept for broiler breeders which are to be inseminated artificially. The system is very hygienic and efficient and consists of a three-tier manure belt battery for separate keeping of males and females.

A housing system for broiler breeders must meet very specific requirements, which Big Dutchman can fulfil in an ideal way with UNIVENT Parents-AI.

These requirements include:

- ✓ controlled feeding;
- ✓ easy access to the birds during artificial insemination;
- ✓ secure transport of the hatching eggs.

All wire meshes used for bottom wires, cage fronts and sides are zinc-aluminium coated. This special alloy resists corrosion and rust more effectively than other materials, thus guaranteeing a longer service life.

Thanks to our many years of experience with cage and broiler breeder management, we are a competent partner for successfully managing broiler breeders in an AI program.

Feed and water supply

The Big Dutchman chain feeding system has proven to be a highly reliable and cost-effective feeding system. The CHAMPION feed chain transports the feed to the birds evenly and without separating it.

The following technical details ensure that the broiler breeders are fed according to a controlled or restricted feeding schedule:

- ✓ The FW 9940 feed weigher ensures that all birds receive the exact pre-defined quantity of feed.
- ✓ Separate feed hoppers equipped with adjustable feed level slides in each row and each tier are supplied with the daily feed quantity via one feed valve each → destination feeding.
- ✓ It is easily possible to use a separate feed mixture for males.
- ✓ During filling, a plastic tube closes the feed trough (optionally as reinforced or step-access version).

Nipple drinkers are used to provide the birds with clean drinking water. Nipples are made of stainless steel. A V-shaped trough below the nipples collects any splash water, thus preventing corrosion.

In the group cages for the hens, each bird can easily reach the two nipples situated at the back of the cage.

The two nipple drinkers for the males in their individual cages are installed at different heights. This ensures that even young, not yet fully grown males can consume plenty of water.



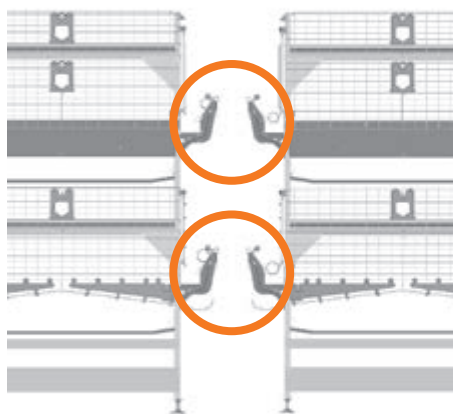
FW 9940 feed weigher



UNIVENT Parents-AI with male tier



Feed hoppers in each tier are supplied with an exactly defined feed quantity via one feed valve each



A plastic tube closes the trough during filling

Bottom wire

The bottom wire is placed on tension wires which are tensioned across the entire length of the system. This provides for good flexibility and therefore minimizes the percentage of cracked and hairline-cracked eggs.

- Mesh size: ♀ 1 x 1.5"; ♂ 1 x 1.5"
- Wire gauge: ♀ 2.0 mm; ♂ 2.5 mm
- Bottom wire slope: ♀ 7°; ♂ 0°

Cage front/footrail

The cage fronts for all male and female tiers consist of sliding grids which can be completely opened. This facilitates the daily artificial insemination process as well as moving birds in and out.

In the male tier, the cage fronts' rods are arranged vertically. A likewise vertical eating window with a width of 64 mm allows the males to consume feed easily, preventing injuries to the comb.

In the female tiers, a flat-surfaced footrail made of plastic encourages hens to lay their eggs close to the trough. This shortens rolling-off distances and thus improves egg quality.



Cage front in the hen tier



Cage front in the male tier

EggSaver/egg collection

The EggSaver is an optional feature to ensure that eggs roll off safely onto the longitudinal egg belt. A thin wire is installed in front of the longitudinal egg belt for this purpose. This wire is raised and lowered at certain intervals during the laying period.

The elevator with cross belt or a manual collection table guarantees that the eggs are transported safely and gently.



Elevator with egg cross belt



Manual collection table

Manure belt and air duct

Manure belts beneath the cages collect the manure, which can remain there for up to five days if manure belt ventilation is included. Fresh air from the optional air duct installed directly above the manure belt dries the manure and reduces the number of flies in the house as well as the ammonia load of the house air.



Manure belts in each tier improve hygiene in the house

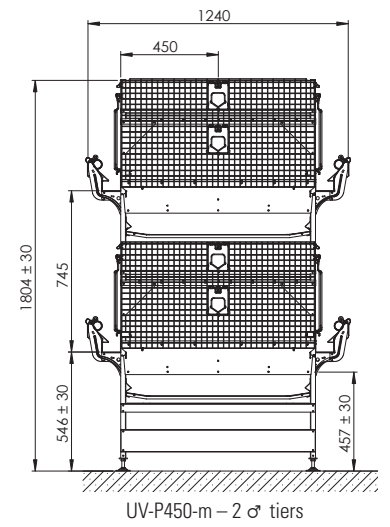
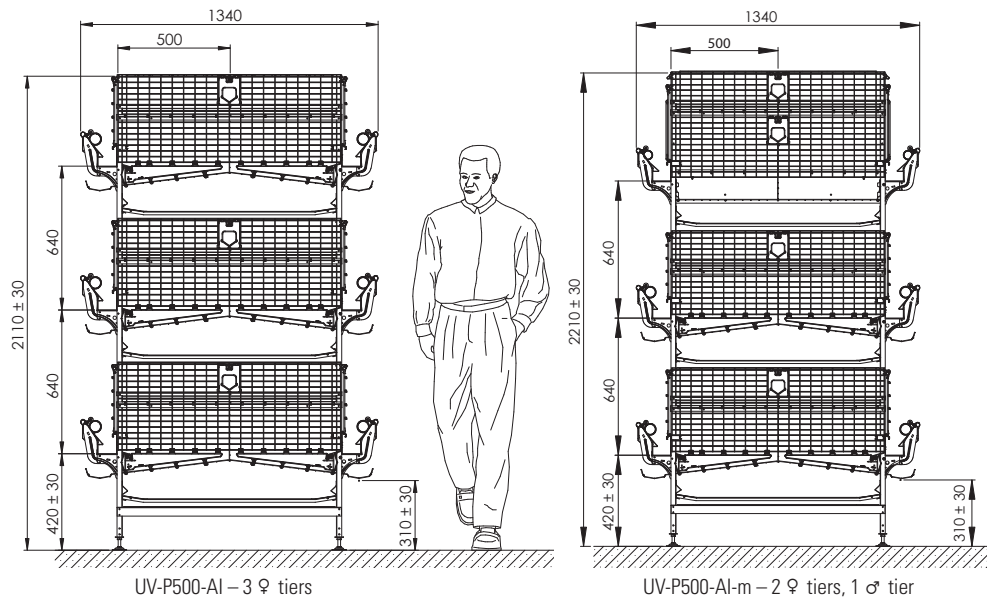


Plastic curtain in front of the manure chute

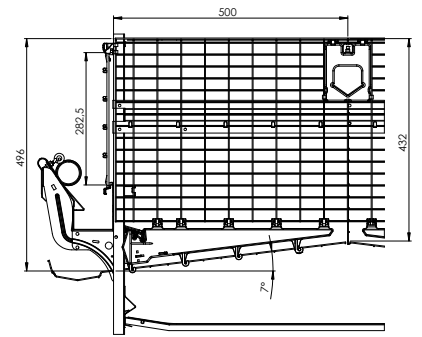
Advantages

- ✓ significantly higher stocking density compared to barn egg production;
- ✓ considerably less males required (ratio 1:16);
- ✓ artificial insemination improves fertilisation rates permanently;
- ✓ improved hygiene status;
- ✓ good egg quality, clean hatching eggs;
- ✓ low mortality rate;
- ✓ high efficiency thanks to a high degree of automation (feed and water supply, egg collection, manure removal);
- ✓ daily feed rations for males and females are supplied exactly as required;
- ✓ step-access feed trough in all tiers → ideal for inspection;
- ✓ low ammonia emissions.

Technical data and planning instructions



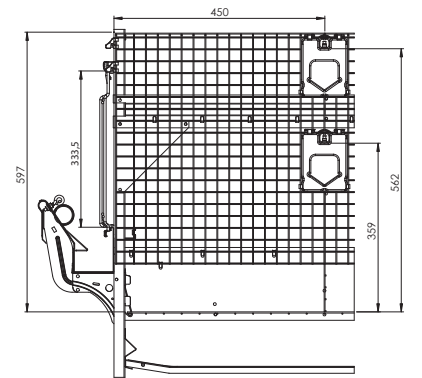
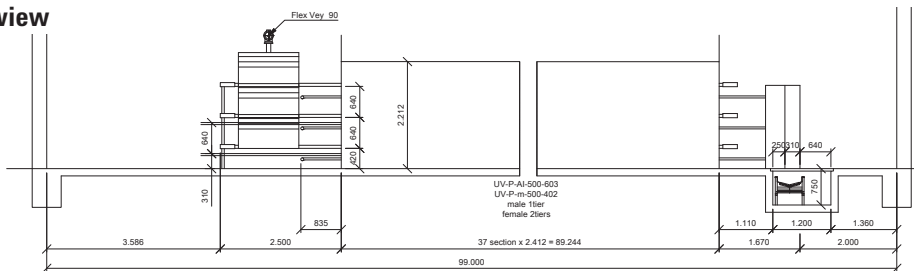
System type	UV-P500-AI*	UV-P500-AI-m*		UV-P450-m
	♀ (3 tiers)	♀ (2 tiers)	♂ (1 tier)	♂ (2 tiers)
Cage dimensions:				
• Depth	mm	500	500	450
• Width	mm	603	603	402
• Height (front)	mm	496	496	597
• Height (cage front)	mm	282	282	333
• Height (back)	mm	432	432	597
Birds/cage		3	1	1
Number of cages/tier/section	8	12	12	
Number of birds/tier/section	24	12	12	
Feeding space/bird	cm	20.1	40.2	40.2
Cage area/bird	cm ²	1005	2010	1809
System width	mm	1340	1340	1240



Cross section of UV-P500-AI ♀ cage

* All systems can also be supplied with small air duct.

Side view



Cross section of UV-P450-m ♂ cage

Recommendation for planning a house of the dimensions 92 m x 16 m x 3.5 m: 4 rows of 34 sections of UV-P-500-AI with 3 ♀ tiers each, 2 rows of 34 sections of UV-P-500-AI-m (2 ♀ tiers and 1 ♂ tier) each = 13 056 females and 816 males at a ratio of 16:1.



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