

ATTACHMENT B

Furnished cages

Large furnished cages

Large furnished cages, especially the earlier models, are often derived from broiler parent cages. Although there is no clear limit to the size of the cage, nowadays groups up to 60 hens are formed. One system is made for groups of 115 hens, but technical results are not known. The depth of the cages is usually much more, often more than twice the depth of a CC. Therefore they are stacked with only one cage row per level (so not connected to each other with the back of the cages). The more shallow cages can be connected with the back. To create space for large groups of hens, those cages are then very long.

Cage bottoms are sloping, so that eggs can roll onto an egg belt. Often cage bottoms are made of wire mesh, but also plastic slats are used.

Usually feed is provided with feed troughs outside the cage. The deeper cages can have a feed trough running through the cage or can even be equipped with feeding pans. Cage doors are usually of a sliding type and similar, but larger than doors of CCs. If feeders are inside the cage, cage doors do not need to have horizontal bars.

Nestboxes are located on one side or in one corner of the cage. Ideally eggs roll directly from the nest onto the egg belt and do not need to roll through the cage. However, in some models eggs roll over a part of the cage wire floor before ending on the egg belt. This is not in favour of egg quality, but the construction sometimes is chosen to have enough feeding space in the cage. If the nest is placed in the front of the cage, there is less feeding space and less overview over the system, making controlling more difficult.

Cage height is often more than 45 cm, as this facilitates an easier view through the deep systems. Sometimes the height makes it possible to create two living levels by installing elevated perches. If a feeder is running through the cages often a perch is installed on top of it.

Litter can be provided in boxes or on mats. Both systems can be combined

with automatic litter supply. Boxes need a closing mechanism, being a door or wire partition.

To prevent extreme dark places in large FCs it important to pay attention to the lighting of the system. This means either placing lights in the aisles on different levels ore have lights in each cage.

Manufacturers of large FCs:

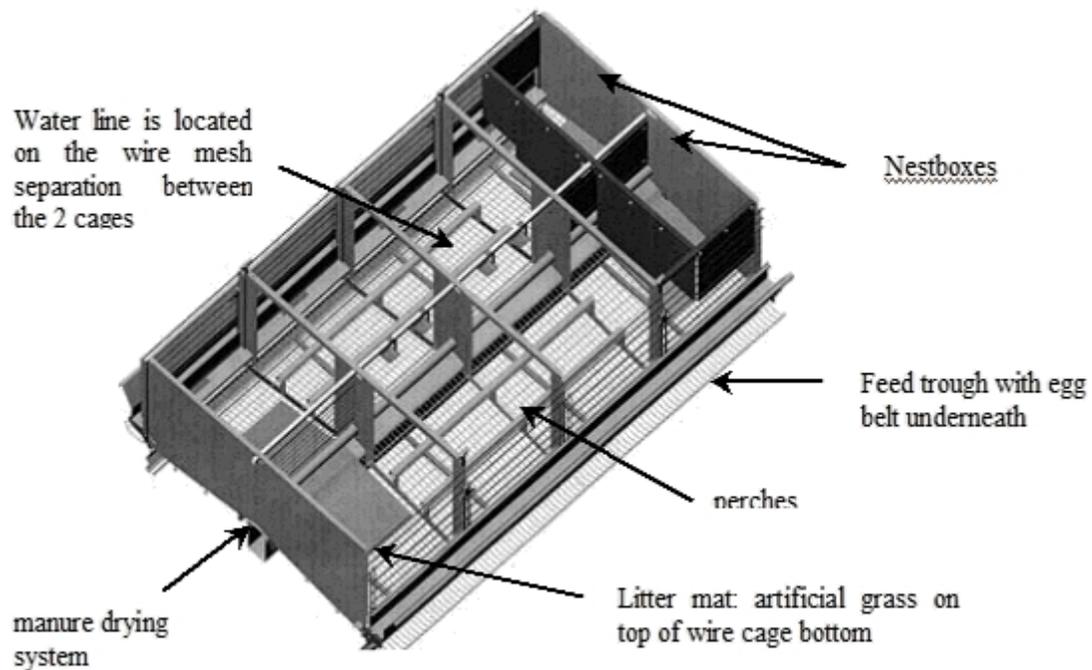
D: Big Dutchman, Farmer Automatic, Hellmann, Meller, Salmét, Specht

I: Valli

NL: Jansen PE, Vencomatic

S: Victorsson

Figure 3.2: Schematic drawing of 2 large furnished cages



Medium Furnished cages

Medium furnished cages house 15 - 30 hens per cage. Often these cages are shallow and two rows are connected with the back of the cages. Other models however are also available, where the cage runs all across a level to the other aisle. The height of the cages is often 45 cm or not much more. Bottoms of the cages are sloping to the aisles to have eggs roll onto the egg belt. Mostly wire mesh bottoms are used. In some cases in the area of the nestbox the wire is plastified.

Feed troughs are outside the cages. Nipple drinkers are inside the cages. The number of nipples is depending on the cage size.

Nestboxes are in a corner or on a side of the cage. As cage height is limited, perches are usually installed in one level, slightly above the cage floor. Litter is provided in boxes or on mats and can be automated fully.

Manufacturers of medium FCs:

D: Big Dutchman, Farmer Automatic, Hellmann, Meller, Salmét, Specht

S: Victorsson

NL: Jansen PE, Vencomatic

I: Valli, Tecno



*Figure 3.3: Furnished cage for medium group size
Medium sized group (18 hens) in FC with hard wood perches. To meet the required 15 cm per bird and still provide the hens enough space for movement one of the perches is positioned angled to the other.*

Small furnished cages

Small furnished cages house up to about 15 hens. Mostly these cages are shallow and two rows are connected with the back of the cages. The height of the cage is limited to 45 cm or slightly more. Cage bottoms are made of sloping wire mesh, allowing eggs to roll onto the egg belt. To save space nestboxes and litter area are often placed above each other and are therefore limited in height.

Cage doors are mostly very similar to those in CCs.

Feed troughs are outside the cages. Usually 2 nipple drinkers per cage are installed.

Nestboxes are in on a side of the cage and usually run over the full depth of

the cage. As cage height is limited, perches are usually installed in one level, slightly above the cage floor. Litter is provided in boxes and supply can be automatised.

Manufacturers of small FCs are:

D: Big Dutchman, Farmer Automatic

I: Facco, Tecno, Valli, Zucami

S: Victorsson

Figure 3.4: Furnished cage for small group

*Litter box is on top of the nestbox
The perch is positioned parallel to the
feed trough. The feed trough is running
outside the cage. Underneath it is the egg
belt.*





Figure 3.5: Furnished cage for small group (8 hens)

Various behaviours in a furnished cage with 8 birds. One birds is in the litterbox, one bird is wingflapping and several birds are perching

Figure 3.6: Furnished cage for small group

Small group (8 hens) of medium brown hybrids in FC with hard wood perch, side nest box with Astroturf floor pad and litter dust bath box over the nest.

