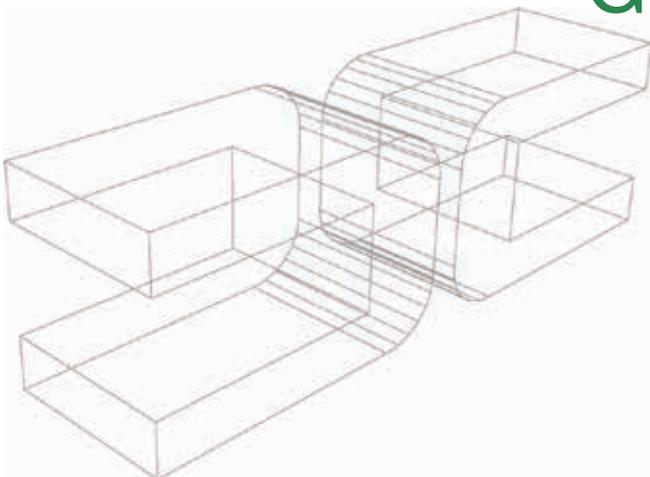


## Generation Structure



The Generations® range offers a high quality, bio-secure animal housing. Strong and durable, this standardized building is available in clear span widths of between 8 to 16 meters. The unique design protects the side walls from direct sun and rain which substantially improves the building's insulation helping to lower cost of ownership.

# GENERATION® STRUCTURE

## Poultry

For all your poultry housing needs, look no further than our Generation® range. Our experienced design team includes in-house poultry expertise and will assist you in maximizing and optimizing the surface area of your farm. Our buildings meet all the requirements of poultry production, and whether it is for broiler, breeder or layer operations, these durable structures will give a low cost of ownership throughout a very long life cycle.

Smooth inner walls and ceilings enables easy cleaning and uninterrupted ventilation. Our galvanized and lacquered sheet metal or polyurethane foamed sandwich panel ceilings further ensures optimal biosecurity. Each junction is sealed with silicone and joined creating an air tight environment. The thicknesses of insulation can vary from a minimum of 4 cm. to meet the highest requirements. We guarantee temperature uniformity and the absence of thermal bridges.

## Swine

C-Lines is experienced in setting up swine structures for all stages of production. These buildings offer the best performance in terms of environmental control and biosecurity. Our in-house swine experts design housing to optimise the very latest of modern farming methods.

The flat ceiling: promoted on all our pig projects, accelerates the air flow of ventilation and is also accessible for cleaning and avoiding hot spots. The ceiling can be realized in PVC metal sheets, sandwich panels, or any other special coated surface. Smooth inner walls and a high quality coating allows for easy cleaning and uninterrupted ventilation.

## Commercial Egg

These layer farm solutions offer the best performance in terms of environmental control and biosecurity. Through our vast global experience, we have built C-Lines into the premier brand for the commercial egg and poultry industry. Due to our strong focus on biosecurity, you can be confident that your commercial egg projects at any scale will be housed in a reliable and safe structure.

## FRAMES

Generation® frames utilize 100% hot dip galvanized steel for its structures and utilise a fully bolted assembly for lowest shipping cost to site and super-fast installation. C-Lines prides itself with its highly durable structures that are able to endure any and all weather conditions.



## CEILING & TOP INSULATION

Generation® ceilings are available in, lacquered metal sheets or aluminium-zinc coating. The benefits of having a profiled ceiling includes; avoiding the accumulation of heat at the top, reduced heat accumulation on the floor and creates an air gap to enable dynamic air ventilation. Our top insulation utilizes polyurethane or glass wool to ensure that temperatures inside the building are always at optimum levels.



## INSTALLATION



A lighter frame means a lighter concrete base. Each post of the structure stands on a solid concrete block. C-Lines ensures that these concrete blocks adhere fully to local legal codes. The concrete and fast acting chemical anchorage used ensures that Generation® structures are quickly built and most importantly, strong.

Our prefabricated design makes for an easy and rapid installation process. We provide detailed step-by-step instructions for erecting Evolution® structures.

## SIDE WALLS

Generation® walls are specifically designed to improve insulation and avoid any thermal bridge. Side walls are adaptable to any industry equipment such as ventilation, heaters and pop-holes and the smooth bio-secure surface makes cleaning a breeze.

The unique design protects the side walls from direct sun and rain which substantially improves the building's insulation helping to lower cost of ownership and to prolong the life of the PU panelling.



## PVC PANELS

Optional highly durable PVC panels installed will greatly reduce concrete work times and enable flexible planning. The highly impact resistant panels serve as formwork for concrete, even at gables, to strengthen the overall structure integrity.



## INTERIOR

The interior is completely post-free. It is strong enough to support the ceiling, feed and watering lines, cages, heaters and any livestock farming equipment. The lack of posts and crossbars mean more efficient air flow and ventilation for your structure. This is achieved by having all reinforcements placed outside the building. Clear span buildings assure unhindered animal management and faster turnaround time between production cycles.



## ROOF

The roof may be supplied using, corrugated lacquered trapezoidal metal sheets or Aluminium-Zinc coated metal sheets. All roof material options are sleek in design and will provide excellent weather protection. Generation® roofs are uniquely designed allowing the long overhang to increase insulation efficiency.



## DOORS & WINDOWS

Our heavy duty doors are designed to keep the building 100% airtight when closed ensuring biosecurity for your animals. All doors and windows are made using high quality and durable materials to ensure good service throughout the long life of the building.

## INTERNATIONAL COMPLIANCE

All frames are calculated in Eurocodes and compliant with international structural regulations.

- Post free span from 8 to 16 meters.
- Wind loads up to 250km/h (cyclonic area)
- Snow load to 200kg/m<sup>2</sup>



## PANELS SPECIFICATIONS

| Panel Nominal Thickness (mm) |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| U transmittance              | 25    | 30    | 35    | 40    | 50    | 60    | 70    | 80    | 100   | 120   | 150   | 180   | 200   |
| W/m <sup>2</sup> K           | 0.846 | 0.718 | 0.624 | 0.551 | 0.447 | 0.375 | 0.324 | 0.285 | 0.229 | 0.191 | 0.153 | 0.128 | 0.116 |
| Kcal/m <sup>2</sup> H°C      | 0.730 | 0.619 | 0.538 | 0.475 | 0.385 | 0.324 | 0.279 | 0.246 | 0.197 | 0.164 | 0.132 | 0.111 | 0.100 |



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