



CHICKLINE™ SOLUTIONS

... designed for poultry industry



OVERVIEW

With the globalization and information awareness, the consumer all around the world are going through an emotional turmoil on quality and hygiene standards of the poultry industry and so is the case with India and other South Asian countries.

The Poultry Industry has grown over the years at a very high pace but with the recent advent of new diseases it has become more cautious. A lot of new and improved measures have been taken to curb the fear of growing disease in this sector. Eventually steps have been taken to secure the interest of the industry and the consumer. One such step is to build technologically advanced

environment controlled buildings, which helps in controlling the spread of any such diseases. It also provides high quality products and high yield advantage over the conventional methods. These solutions are designed to deliver the best products as per international standards.

After a great success and acceptance in many Asian countries like Thailand, Malaysia and Vietnam, Tata BlueScope Steel offers the same advanced buildings to satisfy the need of poultry industry as CHICKLINE™ SOLUTIONS for the first time in South Asia.

CHICKLINE™ Solutions has different product configurations for the Poultry Industry Building requirements as:

CHICKLINE™ ROOFING SOLUTIONS



CHICKLINE™ PEBLITE™ SOLUTIONS



Specially designed roof solutions for poultry production buildings e.g. broilers, breeders, layers, ducks etc. manufactured from:

Supporting Truss:

Fully computerized designed SMARTRUSS™ roof supporting structure manufactured from high tensile aluminium-zinc alloy coated steel.

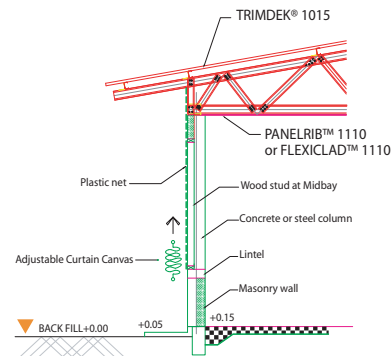
Roof Cladding:

TRIMDEK® 1015 roof cladding manufactured from aluminium-zinc alloy coated steel as ZINCALUME® steel or ZACS™ as per customer's requirement.

False Ceiling:

PANELRIB™ 1110 or FLEXICLAD™ 1110 profiles manufactured from galvanized steel.

The CHICKLINE™ ROOFING SOLUTIONS are so light in weight that it can be supported by LYSAGHT™ high tensile purlins or RHS (rectangular hollow section) tube as per customer's requirements.



FEATURES	BENEFITS
<ol style="list-style-type: none"> 1. Fully integrated computerised design 2. Readymade solutions manufactured from Hi-tensile coated steel 3. Nut and bolt connections for accurate structure assembly 4. No cutting, welding or painting required at site 5. Closed house system for quality and hygiene maintenance 	<ol style="list-style-type: none"> 1. Tested and trusted solution 2. Lightweight structures with reliable corrosion protection 3. Quick and easy installation 4. Better Streamlined Airflow, ensuring Energy Saving 5. Reduces Risk of Disease Propagation 6. Easy Cleaning Lowers Maintenance Cost 7. Improved Quality and Production Yield

CONVENTIONAL METHOD



Severe corrosion on roofing and structures

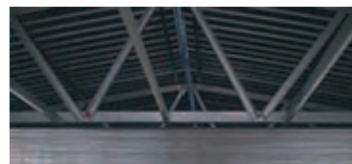


High Corrosivity, Fungi & Lichien inside panel



Conventional structure with galvanised roofing

CHICKLINE™ ROOFING SOLUTIONS



Clean design and High Corrosive Resistant Structure



Add-on metal ceiling for optimize ventilation



CHICKLINE™ with ZINCALUME® steel roof solution

CHICKLINE™ ROOFING SOLUTIONS

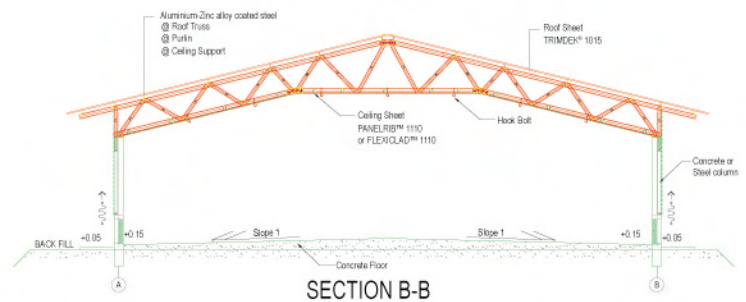
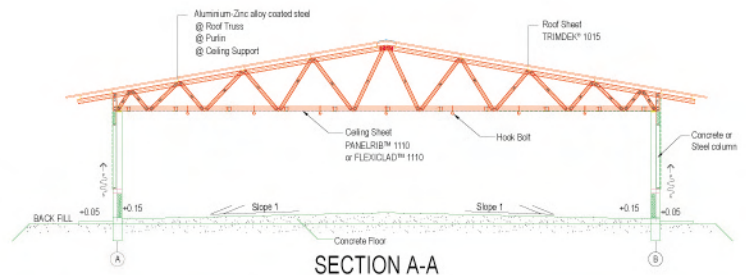
Options for Building Pattern

a) Flat Ceiling

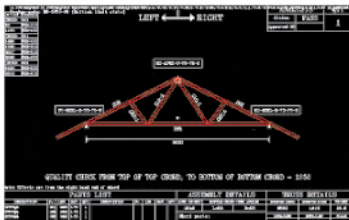
Uniform clear height provides streamlined airflow. The inside air volume can be reduced significantly thus ensuring lower requirement for ventilation. The airspaces between the roof and ceiling provide extra thermal resistance.

b) Elevated Ceiling

In the case of using a birds catching machine, farm owners may require an extra-high ceiling to accommodate a minimum clear height for operating the machine. It does not spoil the desired airflow pattern, while keeping enough airspaces between the roof and ceiling to provide extra thermal resistance. Both ceiling systems are efficiently sealed, reducing air leakage and therefore increasing air flow.



Construction Process



Step 1 : Accurate Computerised design



Step 2 : Computerised manufacturing - Cutting and Marking to give 100% precision, Rolled to length and no wastage



Step 3 : All materials are pre-cut and ready to install, delivered direct to site



Step 4 : Easy and quick to install by using self drilling screw



Step 5 : Light Weight trusses are ready to install



Step 6 : Roof truss system. No painting, cutting or welding at site



Step 7 : Light Weight Structures with reliable high corrosion resistance



Step 8 : Clean environment without dirt accumulation. Lower fan requirement as air volume is minimised



Step 9 : Long lasting CHICKLINE™ ROOFING SOLUTIONS

Dealing with uneven temperature

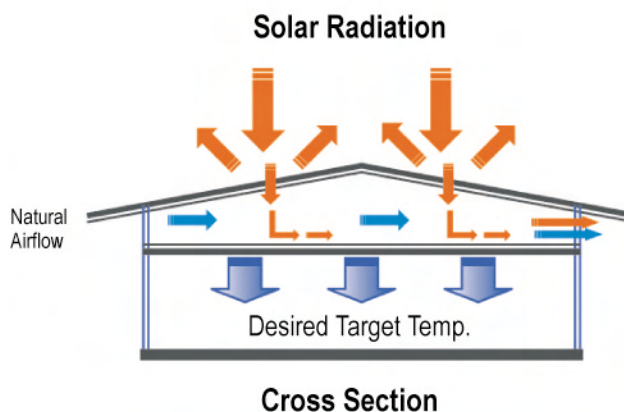
Temperature Control

Desired Target Temperature

In most situations, temperature control is the primary goal of ventilation, and the need is to prevent heat build-up. This is done by exhausting warm air from the building, by better cooling through the wind-chill effect of tunnel ventilation, and by lowering the actual air temperature through evaporative cooling.

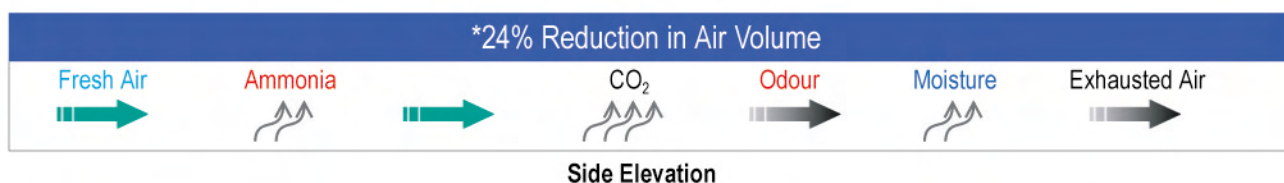
In Hot climates – The false ceiling helps in natural airflow thus reducing heat transfer from the sun.

In Cold climates – Air space & Ceiling insulation helps to keep room temperatures warmer.



Ventilation Control

Airflow – The proper house design will enhance the cooling effect and provide the fresh & clean airflow.



• Fresh & Clean Air

To maintain good level of oxygen in the house fresh air is required. Proper ventilation is required to provide fresh air in all seasons.

• Optimum humidity

Ventilation is the only way to lower high humidity, which is often a problem in winters and can affect bird health. Even when ventilation is not needed for heat removal, we must maintain at least a minimum rate of ventilation to prevent wet, caked litter and ammonia problems.

• No toxic fumes

The flip side of bringing fresh air to replenish oxygen is getting rid of the birds exhaust fumes, which is mainly carbon dioxide. The most common toxic gas problem, however, is ammonia coming from too-wet litter, which leads to health problems and lowered performance. Proper ventilation heads-off build up of ammonia by controlling relative humidity.

* Based on Building Dimension : 120.00m (L) x 12.20m (W) x 2.40m (H)

Add-on Accessories*: Environmental Control Systems



Exhaust Fan



Cooling Pad



Curtain Canvas



Feeder & Waterer



Control Unit



Lighting

* to be procured from other manufacturers

CHICKLINE™ PEBLITE™ SOLUTIONS

Specially designed light pre-engineered building solutions are manufactured from corrosion resistant galvanised high-tensile steel purlins. The structure is clad with high-tensile steel roofing and wall cladding sheet. This provides long lasting life to warehouse and manufacturing needs of poultry industry.

Frame : Galvanized high-tensile steel purlins for primary and secondary structure requirements.

Cladding : Profiles manufactured from ZINCALUME® or COLORBOND® steel.



Typical Light Frame



Typical Light Frame



Structure Connection Details



Base Connection Details



General Building



Residential Building



Warehouse



Store Room



Warehouse

BENEFITS
1. Light Weight Structures manufactured from high-tensile steel
2. Premium Quality Steel
3. Accurate Dimension
4. Good for Severe Environments
5. Non-Combustible
6. Design Flexibility
7. Nut & Bolt System
8. Easy to relocate



Worker's Residential Quarter

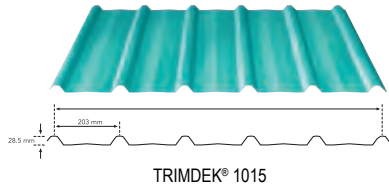


Open Shed



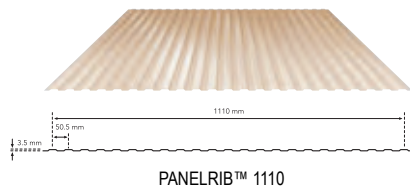
Manufacturing Facility

Roofing, Ceiling & Walling Profiles for CHICKLINE™ Solutions



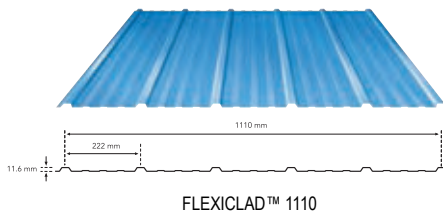
Roofing/Walling : TRIMDEK® 1015

An economical profile suitable for use as either roofing or wall cladding, TRIMDEK® 1015 is pierce fixed either through the ridge or valley. A long time favorite profile that has become widely accepted throughout Asia. It's available in a range of finishes.



Ceiling : PANELRIB™ 1110 / FLEXICLAD™ 1110

An attractive, slightly fluted wall cladding for exterior and interior use on straight or curved surfaces suitable for ceiling or partitions.



Tata BlueScope Steel Building Solutions Manufacturing Facilities in India



Administration Building - Pune, India



Manufacturing Facility - Pune, India



Manufacturing Facility - Chennai, India (Architectural Rendering View)



Manufacturing Facility - Bhiwadi, India (Architectural Rendering View)



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|---------------------------|----------------------|----------------------|
| • West Region - Pune: | Tel: +91 20 66218000 | Fax: +91 20 66218001 |
| • North Region - Delhi: | Tel: +91 11 41629522 | Fax: +91 11 41629520 |
| • East Region - Kolkata: | Tel: +91 33 55502576 | Fax: +91 33 22883183 |
| • South Region - Chennai: | Tel: +91 44 55711072 | Fax: +91 44 24350163 |

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**TATA BLUESCOPE
STEEL**

Tata BlueScope Steel Limited

The Metropolitan, Final Plot No. 27,
Survey No. 21, Wakdewadi, Shivaji Nagar,
Pune - 411005. INDIA

Tel: +91 20 6621 8000

Fax: +91 20 6621 8001

Website: www.tatabluescopesteel.com

Email: marketing@tatabluescopesteel.com