



From a Greek Cross to Skellet..







From a Greek Cross to Skellet..

But when we put a profile under pressure the shape becomes very important.

A symmetrical, hollow shape around its axis appears to be the most efficient shape for a profile to endure compression forces. Hollow



Tube







Joining together two open profiles forms no problem.



Connecting a closed profile delivers a problem. The connection plates form an obstacle for other profiles or wall finishings.





From a Greek Cross to Skellet..

Skellet delivers an excellent solution for this problem.

By connecting the profiles within the outer surface of the profile, Freeing up space to connect other profiles becomes possible.







Connectivity

This enables us to create complex connections without ever losing its user friendly capability.

It also frees up space to add plate material without any obstruction of connection plates.







Connectivity

By using the inner space of the Skellet-profile, we are able to make complex connections without any limitations.







Working and designing on a grid.

Every Skellet-profile has holes punctured on a grid of 25mm. They are used to connect profiles by using a riveting system.

By using these holes we create a grid. Forcing a designer to work on a grid with many adventages

- ahead. Namely: Dimensional stability.
 - Simplicity for the designer.
 - Simplicity during assembly.
 - Flexibility.







Most important aspects of Skellet.

- Greek cross shape of profile.
- Symmetrical around its axis.
- Grid of connection holes.





Skellet = The lightest steelstructure in the world.





Skellet creates lighter structures:

- Symmetrical Tube Profile.
 (Most efficient shape to endure compression forces.)
- Meccano principle (Making it easier to handle **High Strength Steel**. Eliminating the need to weld.)
- Flexibility (Adding steel where necessary and eliminating excessive use of steel.)



Difference in weight for the same stabillity

- Light steelframing -30% to -50%
- Hot-rolled steel -40% to -70%





The production of a Skellet profile is more environmental friendly compared to a hot-rolled steel system.



Skellet decreases CO₂ emissions!

| | Weight | CO2 emission / ton | Total CO2 emission | |
|------------|-----------|--------------------|--------------------|------|
| HRS | 2 335 ton | 473 kg | 1 104 455 kg | 100% |
| Skellet | 1 198 ton | 290 kg | 347 481 kg | 31% |
| Difference | | | 756 974 kg | 69% |

In terms of CO_2 emissions : Other (steel) building systems form **no competition** at all.





CO₂ emissions of Skellet

To achieve these low CO_2 emissions, the basic material has to be produced with the "Direct Strip Casting" technology. This technology emits 80% less CO_2 than traditional "thin sheet" productions.

- Possibilities are: Direct sheet plant Tata steel (NL)
 - Castrip Nucor (USA)

The Direct Sheet Plant (DSP) is more energy efficient than the conventional HSM proces







Sustainability is not only CO₂ emissions.

Skellet has incredible reusability- and recycling capacities

- Traditional CFS construction = 11% directly reusable and 89% recyclable (Light Steel Framing)
- Traditional HRS construction = 50% directly reusable and 50% recyclable
- Skellet construction = 95% instantly reusable and 5% recyclable



The possibilities of re-employability with Skellet in renovations is greater than with other systems.

So in terms of sustainability: Other (steel)building systems form **no competition** at all.





Machinery for Hot Rolled Steel Constructions







Machinery for Skellet







Current Application Areas

Steel only







Care units









Housing











Appartments









Industrial buildings











Rackingsystems









Office buildings











Boat houses









Temporary bridge











Renovations









Roller conveyors





New Application Areas







Trusses for stages (or similar)



• Aluminium







Scaffolding

- Steel
- Aluminium









Trusses for swimmingpools

- Steel
- Stainless Steel







Conveyor belt

- Steel
- Aluminium
- Stainless Steel









Structure for facade systems



Steel







Pedestrian bridges

- Steel
- Aluminium
- Stainless Steel









Holiday resorts

- Steel
- Aluminium
- **Stainless Steel**

Tents

• Aluminium

Traffic lights and signs

- Steel
- **Stainless Steel**

re

Transmission towers

- Steel
- Stainless Steel

High-Bay warehouses

• Steel

Green houses

- Steel
- Aluminium
- Stainless Steel

The limits of Skellet come with the creativity of the designer,

not with Skellet!

Represented in Sub-saharan Africa by

www.steelqore.com info@steelqore.com +31 (0)620 056 395