

Fast and reliable construction with Light Gauge Steel

For investors, architects, construction companies and private clients

Speed

Up to three times faster than conventional building methods.
A family house built in a month - from blueprints to completed project

Precision

Machine grade precision in all elements. The result is straight corners and walls and precise distances between them in the completed building

Quality

High level of thermal and sound insulation. High energy efficiency. Lower initial investment and subsequent maintenance costs.

A modern construction system developed for speed, precision and high quality

Light gauge steel framing construction, or LGSF for short, is a building technology that uses cold-formed, galvanized steel sheets as the primary structural material. It is widely used in the USA, Europe, the UK, Australia, and New Zealand where it has successfully replaced traditional construction methods over the last few decades.

Once construction is complete, a building constructed using LGSF will not look any different from one built with reinforced concrete or prefabricated timber, as the same traditional construction materials can be used in the finishing works for the interior, exterior, and roofing.

The LGSF building structure is half the weight of a comparable timber structure and significantly lighter than a reinforced concrete structure; consequently, buildings constructed using LGSF have very high seismic resistance, as well as excellent fire-, wind and snow resistance

Provided that construction techniques are followed and the LGSF structure is properly insulated, the normal service life

of the completed building exceeds 150 years.

Buildings constructed using LGSF feature excellent thermal and sound insulation, offer exceptional living comfort, and have low energy consumption. The walls and corners are perfectly straight, which makes interior finishing work and furnishing very easy.

Constructing buildings using light-gauge steel framing is up-to three times faster than traditional construction. The structure can be assembled on-site in a matter of days. Light-gauge steel structures do not deform over their service life, are not prone to cracking, and are immune to pests. The steel is galvanized on both sides, providing long-term protection against corrosion.



A stage in the construction of a building using LGSF technology

ENVIRONMENTALLY FRIENDLY

LGSF is a technology that does not generate construction waste on the site.

COMFORTABLE

Better thermal and sound insulation for a peaceful and comfortable life

RESISTANCE

Better earthquake, fire, snow and wind resistance

The perfect choice for an eco-friendly and durable building

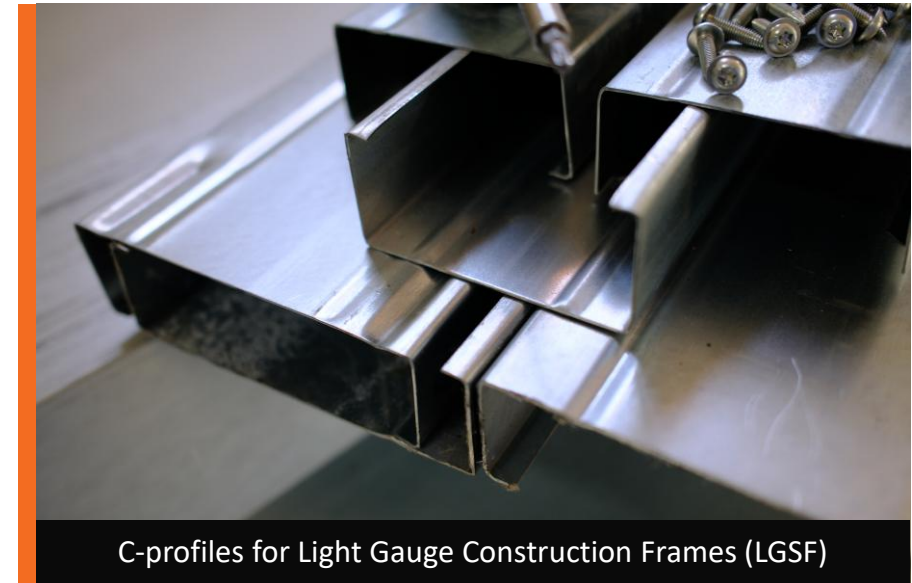
The LGSF technology is the perfect choice for anyone who wants to construct an eco-friendly and durable building. The completed buildings offer the highest level of energy efficiency, which significantly reduces cooling or heating costs.

Among all known construction materials, steel offers the best ratio of self-weight to load-bearing capacity. This high efficiency is the reason to use galvanized steel grade S350-GD (EN10346), which is specifically developed for applications requiring high strength and excellent corrosion resistance. It is suitable for bending and roll forming, making it easy to integrate into complex engineering projects.

Despite their low mass, LGSF structures are exceptionally strong, and their on-site assembly is straightforward, requiring no specialized equipment or heavy-duty cranes. This saves time and reduces labor and energy costs.

LGSF panels are designed using specialized CAD software. Each C-profile

has a precise, designated position within the panel structure and is individually marked during fabrication. Profiles emerge from the production line cut to exact dimensions, with pre-drilled connection holes; they are then either assembled into panels at the factory floor or transported to the construction site for on-site assembly. There is no need for expensive cutting or welding equipment at the construction site, and the potential for error is eliminated, all of which reduce further both the project cost and its execution time.



DESIGN PRECISION

Specialized CAD software for the precise fabrication of components

RAPID EXECUTION

The construction is manufactured and assembled in a matter of days

LOW COSTS

Lower operating costs throughout the building's entire lifespan

Automated production line for precision-dimensioned profiles Prefabricated building panels assembled in a factory environment



Forming and marking

Automated production lines enable the manufacturing of components with precise dimensions, which are pre-punched and marked to facilitate assembly—either in the factory or directly at the construction site. Openings for utility systems (electrical and plumbing) are also pre-punched, ensuring that all such components remain concealed within the walls. We use high-quality galvanized steel, grade S350-GD (EN10346).



LGSF profiles production line

Available profiles

C89x41 mm
C140x 41 mm
Thickness:
0.8/1.0/1.2 mm

AUTOMATED LINES

Two automated production lines produce profiles with precise dimensions.

PRECISE FORMING

The profiles are precisely shaped and pre-marked for easy installation.

FAST WORK CYCLE

The profiles are assembled in the factory into finished panels within a matter of days.



Dimensions of LGSF profiles manufactured by KOVAMAX



Machine precision for exact dimensions

KOVAMAX operates two automated production lines that manufacture C-profiles with widths of 89 mm and 140 mm, respectively, a height of 41 mm, a 10 mm lip, and a thickness ranging from 0.8 to 1.2 mm. These profiles are used for walls, floors, roof structures, trusses, and other building elements. The lightweight yet strong nature of the steel enables the construction of structures with long spans, resulting in large open areas free from unnecessary vertical supports—creating more spacious and functional interiors.



S350-GD (EN10346) steel for LGSF C-profiles

Profile	W (mm)	H (mm)	C (mm)	Thickness (mm)	Suitable for
C89	89	41	10	0.8-1.2	Partition walls, roof elements, and short-span structures
C140	140	41	10	0.8-1.2	Load-bearing walls, tall panels, long spans

DIMENSIONS

Profiles C89 и C140

THICKNESSES

Available 0.8 mm, 1.0 mm и 1.2 mm.

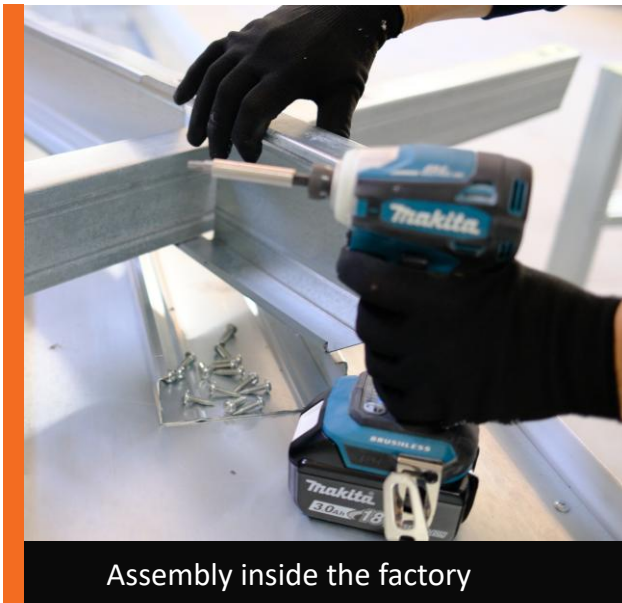
APPLICATIONS

Walls, floors, trusses, and other LGSF structures



The dimensions shown are nominal: C89 x 41 x 10 и C140 x 41 x 10, with standard thickness 0.8 / 1.0 / 1.2 mm.

Efficient assembly – from profiles to finished building panels



Assembly inside the factory

KOVAMAX assembles LGSF C-profiles into finished building frames, either directly at the factory floor or on the construction site. This flexibility allows the workflow to be adapted to the specific requirements of each individual construction project, further shortening the construction phase. The company carries out the complete assembly of the steel structure using high-quality, specialized galvanized steel screws.



Assembled LGSF panels

01

Preparation

The profiles are manufactured in accordance with the construction documentation.

RAPID EXECUTION

Preliminary preparation reduces the execution time.

02

Assembly into building panels

LGSF profiles are assembled into finished building panels in the factory or directly at the construction site.

FLEXIBILITY

Assembly at the factory or on-site, depending on the specific project

03

Installation of the panels

The prefabricated LGSF panels are installed on the construction site

HIGH-QUALITY FASTENERS

Manufactured in the EU from high-quality galvanized steel

Practical LGSF solutions for the needs of every project

KOVAMAX offers conceptual designs and complete solutions based on light-gauge steel framing for a wide range of buildings. The system is suitable for both traditional and modern homes, cabins, and bungalows, as well as various other types of low-rise structures (up to 3 stories). In addition to its suitability for residential construction, the LGSF construction technology is an excellent choice for building extensions, interior partitioning, the restoration of old buildings, the enclosure of terraces, and the construction of roof structures.

TRADITIONAL HOMES

Traditional forms built with modern LGSF technology

MODERN HOMES

Modern houses with clean geometry and efficient, functional spaces

CABINS AND BUNGALOWS

Single-story buildings optimized for rapid construction

INDUSTRIAL BUILDINGS

Design and rapid construction of warehouse or production halls

GARAGES

Garages for cars and light commercial vehicles

ROOFS

High-quality long-lasting roof structures

INTERIOR PARTITIONING

Constructing perfectly straight interior partition walls



Assembled and installed LGSF panels



KOVAMAX WANTS TO WORK WITH YOU

KOVAMAX is seeking investors, contractors, architects, construction companies, and individual clients interested in utilizing our LGSF (Light Gauge Steel Framing) technology for their projects. We can supply a complete steel structure—engineered using advanced software and manufactured with machine precision—which we can then assemble on-site. Alternatively, we can provide all the components, clearly marked, allowing you to carry out the assembly yourself with the help of our precise instructions.

Our Business-to-Business proposal includes

- ☐ Engineering and CAD design of LGSF panels
- ☐ Delivery of C-profiles C89 и C140
- ☐ Wall, floor, and roof panels pre-assembled in our factory
- ☐ On-site installation, maintenance and training
- ☐ Lon-term cooperation for standard and recurring projects

Send us your architectural project or idea, and we will prepare a proposal for its execution using LGSF, along with a timeline for completion.



A small house from LGSF manufactured and built by KOVAMAX

Contacts:

KOVAMAX Ltd.

Phone: (+359) 888 113 552

email: office@kovamax.com

Web: www.kovamax.com



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