



## Manufacturing Solution

Heavy duty, precision manufacturing for high volume production of residential and commercial building solutions



Innovation Integration Sustainability

[www.framecad.com](http://www.framecad.com)



## The all in one software solution for fully automated production

The powerful FRAMECAD™ software suite enables designers to create precise 3D renderings and accurate working drawings for buildings of all kinds, complete with engineering calculations and structural analysis.

These designs can then be immediately used with FrameMaster™ equipment for automated production of roof and floor trusses, panels and wall framing.



## Precision construction made simple for everyone

FRAMECAD's heavy-duty manufacturing equipment is engineered for fast, high volume production of cold-form steel framing, with accuracy that is determined by the system, not the skill level of factory workers or on site assemblers.

It allows complete buildings of all kinds to be built rapidly from just one steel profile, maximizing efficiency and reducing waste to less than 1%.



All components are produced to an accuracy of +/- 0.5mm ensuring the steel framing is precise and the structure can be built 100% to plan. All holes for fasteners and services are pre-punched to facilitate quick assembly on site and reduce labour costs.



## Proven reliability and technical support

The FRAMECAD™ system has been well proven in design and build projects all around the world, in differing climates, extreme conditions and remote locations.

The technology has been developed to be simple, economical to operate and above all, 100% reliable.

All FRAMECAD™ design, manufacturing and building operations are supported by an international team of consultants and technicians to provide comprehensive assistance with factory planning, installation, training, production management and on site construction.



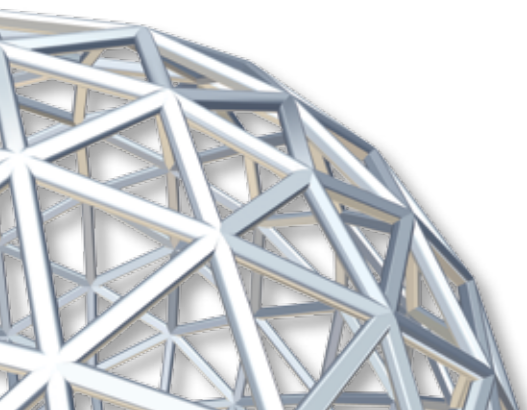
## FRAMECAD™

*Integrated design and build manufacturing solutions.*

Welcome to the world's most advanced steel frame design and build solutions.

With FRAMECAD™ software and FrameMaster™ manufacturing equipment, all processes involved in designing and building with cold-formed steel framing are seamlessly integrated.

This means that design, engineering, quoting, production planning, factory management, materials management and automated steel frame production are all within your direct control, allowing you to optimize production efficiency in ways never before possible.



## FRAMECAD F300i-315i

*Designed for manufacturing framing and trusses for a wide range of residential, commercial and multi storey structures.*

The F300i and F315i systems are suitable for buildings constructed with 89mm or 150mm C profiles.

With a gauge range between 0.55mm and 1.2mm, both systems can be used as stand-alone plants or in multiple machine configurations for a broader range of manufacturing options.

### Typical applications:

- Residential and affordable housing
- Workforce accommodation
- Truss production
- Portable and modular buildings
- Commercial and industrial construction



### F300i-F315i SPECIFICATIONS

Model	FRAMECAD F300i-F315i
Description	FRAMECAD Frame & Truss Plant
Design Software Options	FRAMECAD Detailer FRAMECAD ProDesign FRAMECAD Architect
Factory Software	FRAMECAD Factory
Number of Profiles	1 x C, 1 x U
Profile Size (dedicated) Range 63mm - 152mm	F300i - 89mm (3.5") (Standard) F315i - 150mm (6") (Standard)
Gauge Range	F300i - 0.55 - 1.2mm (24 - 18g) F315i - 0.75 - 1.6mm (22 - 16g)
Roll forming Stations	Eleven
Frame & Truss Tooling Punches	Six
Typical Production Output *1 (model & design dependent)	300m/hr (joists) 700m/hr (walls) 900ft/hr (joists) 2,300ft/hr (walls)
Max Line Speed Plain C or U Section	Up to 1,750m/hr (5,500ft/hr)
Main Drive Power	5.5KW (7.5HP)
Hydraulic Power	3.0KW (4.0HP)
Hydraulic Oil Cooler	One
Hydraulic Reservoir	60L (16 gal)
Hydraulic Accumulator	One
Width	800mm (2.5ft)
Length	3430mm (11ft)
Height	1270mm (4.0ft) to top of covers
Approx weight	1,500kg (3,300lb)
Mains Power Supply	380 - 480V 32A
Printer	2 x 16 Point Print Heads
Controller	1 x Touch Screen Networkable Linux
Decoiler Capacity (Powered)	3,000kg (6,600lb) 1,500mm (60") diameter

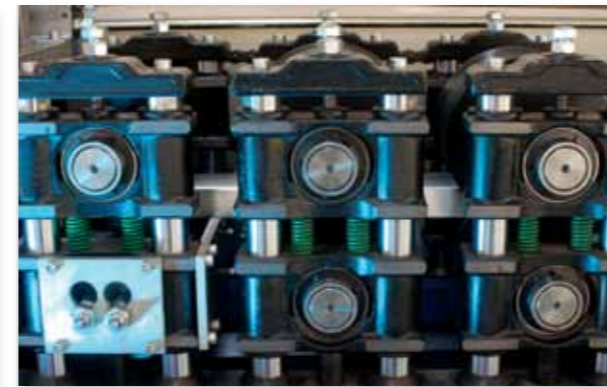
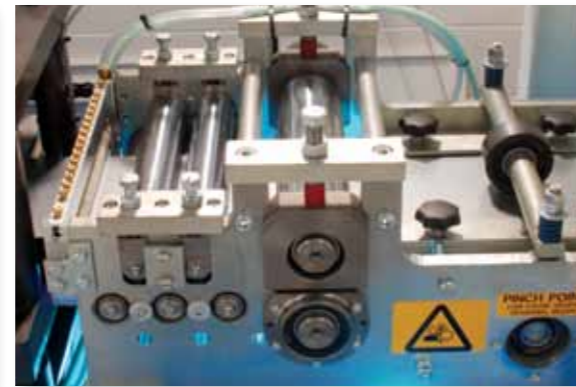
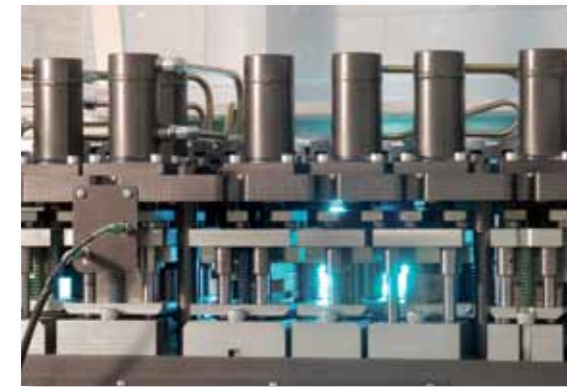
### Unrivalled versatility

Full range of punching functions allows an entire building to be constructed using a single steel profile. The F300i can produce steel framing for wall panels, roof trusses and floor joists for single or multi storey buildings up to 8 levels.

### Next generation technology

With high definition printer heads and a self-purging ink system, the F300i incorporates a number of innovative new features for improved reliability and efficiency.

\*1 Estimated output depends on design complexity, component sizes and punching function. Due to ongoing development specifications are subject to reconfirmation at time of ordering.



## FRAMECAD TF350-550

The FrameMaster TF350 has been engineered for high volume production environments making it the ideal solution for rapid production of repeatable units such as workforce accommodation and low cost housing projects.

The TF550H model is capable of producing large 150mm C profiles up to 2mm in thickness, enabling large multi-storey residential and commercial buildings to be constructed more efficiently and cost effectively

### High-speed production

The TF350 has 14 roll forming stations, which allows the steel to be rolled at higher production speeds.

### Custom Tooling Configurations:

The extra length of the TF350 allows custom tooling stations to be added providing additional functionality. Options include strong axis trusses for longer roof spans and thermal studs for extremely cold climates.

## TF350 TF550 SPECIFICATIONS

Model	FRAMECAD TF350	FRAMECAD TF550/550H
Description	FRAMECAD Truss & Frame Maker (TF)	FRAMECAD Truss & Frame Maker (TF)
Design Software Options	FRAMECAD Detailer FRAMECAD ProDesign FRAMECAD Architect	FRAMECAD Detailer FRAMECAD ProDesign FRAMECAD Architect
Factory Software	FRAMECAD Factory FRAMECAD FactoryPro	FRAMECAD Factory FRAMECAD FactoryPro
Number of Profiles	1 x C, 1 x U	1 x C, 1 x U
Profile Size (dedicated)	89mm (3.5") (Normal)	150mm (6") (Normal)
Gauge Range	0.75 - 1.6mm (24 - 16g)	0.75 - 1.6mm (24 - 16g) TF550H 1.2 - 2.0mm (18 - 14g)
Roll forming Stations	Fourteen	Fourteen
Coil Straightener	One	One
Wall Tooling Punches	Five	Five
Truss Tooling Punches	Four	Four
Typical Production Output *(Depends on Design)	350 - 850m/hr (1,150 - 2,800ft/hr)	330 - 800m/hr (Max 600m/hr 550H) (1,100 - 2,600ft/hr)
Max Line Speed Plain C or U Section	Up to 1,750m/hr (5,500ft/hr)	Up to 1,750m/hr (5,500ft/hr) (Up 1350m/hr TF550H)
Main Drive Power	11KW (15HP)	11KW (15HP)
Hydraulic Power	5.5KW (7.5HP)	7.5KW (10HP)
Hydraulic Reservoir	100L (25 gal)	100L (25 gal) TF550H 120L (30 gal)
Hydraulic Accumulator	One	One
Hydraulic Cooler	One	One
Width	1.1m (3.6ft)	1.1m (3.6ft)
Length	5.8m (19ft)	5.8m (19ft)
Height	1.6m (5.2ft)	1.6m (5.2ft)
Approx weight	4,100kg (8,800lb)	4,200kg (9,250lb) (4,300kg TF550H)
Mains Power Supply	380 - 480V 60A 3 Phase	380 - 480V 60A 3 Phase
Printer	2 x 16 Point Print Heads	2 x 16 Point Print Heads
Controller	1 x Touch Screen Networkable Linux	1 x Touch Screen Networkable Linux
Decoiler Capacity (Powered)	3,000kg (6,600lb) 1,500mm (60") diameter	3,000kg (6,600lb) 1,500mm (60") diameter
Other Options	Additional Punch Tools	Heavy Gauge <sup>1</sup> TF550h 2mm (14g) Additional Punch Tools

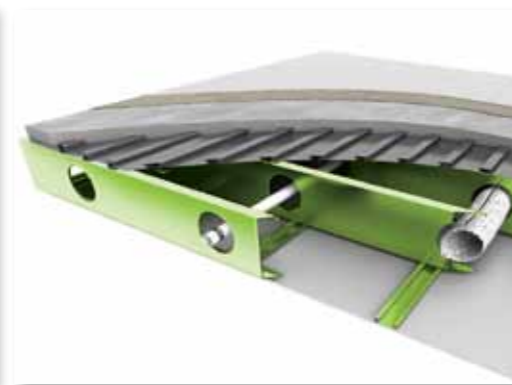
\* Estimated output depends on design complexity, component sizes and punching function. Due to ongoing development specifications are subject to reconfirmation at time of ordering.



## FRAMECAD FL650

The new FRAMECAD™ FL650 produces light gauge steel floor joists for a wide range of building designs, from residential housing to multi-level commercial buildings. Suitable for high volume production, the FL650 flooring system is strong, lightweight and optimises material use to minimise waste.

When combined with FRAMECAD™ frame and truss manufacturing equipment and FRAMECAD™ software, the FL650 provides a fully automated building system that is highly cost effective with almost zero waste.



### High Speed Production

Production speeds from 440 to 1200m/hr (1,450 – 4,000ft/hr) providing output for high volume operations.

### Optimise Material Use

The FL650 takes manufacturing efficiency to new levels by optimizing material use and producing a 250mm C profile with an exceptionally high strength to weight ratio allowing for increased floor spans.

### Engineered Solution

The FL650 incorporates a number of innovative features to ensure the floor system is fully engineered. The floor joists have swaged ends with an integrated web stiffener so they sit precisely at the same level as perimeter joists, achieving full load transfer for multi-level buildings and modular structures.

### Reduce labour costs

Each output is precisely formed, cut, punched and individually labeled ready for assembly. Large service holes are automatically created making installation of electrical, HVAC and plumbing services quick and easy. Fixing tabs are pre-punched ensuring a high quality, engineered connection and rapid on site assembly.

### Full support:

The FRAMECAD™ FL650 is supported by the fully integrated suite of FRAMECAD™ software providing design, engineering and factory control to ensure a smooth, seamless flow from architectural inspiration to commercial reality.

## FL650 SPECIFICATIONS

Model	FRAMECAD FL650
Description	Floor & Frame Plant
Design Software Options	FRAMECAD Detailer FRAMECAD ProDesign FRAMECAD Architect
Factory Software	FRAMECAD Factory FRAMECAD FactoryPro
Number of Profiles	1 x C, 1 x U
Profile Size	254mm (10") or 250mm
Gauge Range	1.2mm – 2.0mm (18 – 14g)
Roll Forming Stations	Thirteen
Coil Straightener	One
Floor Tooling Functions	Six
Wall Tooling Functions	Five (optional)
Slitter for L Profile	Optional
Typical Production Output *(Depends on Design)	440 – 1200m/hr (1,450 – 4,000ft/hr)
Main Drive Power	20KW (27HP)
Hydraulic Power	10KW (13HP)
Hydraulic Reservoir	120L (30 gal)
Hydraulic Accumulator	One
Hydraulic Cooler	One
Width	1.25m (4ft)
Length	8.9m (29ft)
Height	1.6m (5.2ft)
Approx weight	7,000kg (15,400lb)
Mains Power Supply	380 – 480V 60A 3 Phase
Printer	2 x 16 Point Print Heads
Controller	1 x Touch Screen Networkable Linux
Decoiler Capacity (Powered)	3,000kg (6,600lb) 1,500mm (60") diameter
Other Options	Slitter, Extra Punches

\* Estimated output depends on design complexity, component sizes and punching function. Due to ongoing development specifications are subject to reconfirmation at time of ordering.

## FRAMECAD Care

To achieve the best performance from your machine, and minimize any downtime or interruptions to your production schedule, FRAMECAD offer a full support service.



### FRAMECAD First Response:

Get instant support for hardware or software queries, design assistance or production management advice.

### FRAMECAD Protect:

Preprogrammed onsite maintenance for FrameMaster machines every 6 months or 1,000 hours.

### FRAMECAD Remote:

Remote proactive diagnostics and real time collaboration for machine fault resolution & maintenance.

- Data analysis for key component monitoring for preventative maintenance. Remote access to machine software updates operating procedures and manuals.



## OTHER MANUFACTURING SOLUTIONS

FRAMECAD offers a full range of manufacturing solutions for the complete steel building.



Portable Roofing Machine

Including batten machines for producing customized ceiling and roof battens, and portable CNC roll-forming machines for on site manufacture of wall panels, soffit panels, multi-profile roofing and seamless roof guttering.

## FRAMECAD Mobile Factory

Quick-start on site steel frame production anywhere in the world.

The FRAMECAD™ Mobile Factory is a completely self-contained steel frame production facility that can be instantly located anywhere you want it, even in remote areas with little or no infrastructure.

With its own diesel generator and computer-operated fabricating machine, the factory can manufacture precision-engineered steel framing, allowing construction of structures of all kinds to begin immediately and proceed quickly. Housed in a modified 20ft-shipping container, the FRAMECAD™ Mobile Factory can be easily shipped to your desired location and made operational within 24 hours of being sited.

### Features:

1. Diesel generator provides secure power for the entire factory
2. A full canopy provides protection from the weather for both the factory and assembly areas
3. Air-conditioning ensures the FRAMECAD™ equipment machinery operates at the optimum temperature and the operator is in a comfortable working environment
4. An internal gantry crane makes for easy movement of equipment and steel coils
5. A full range of tools and training are provided for commissioning the factory, maintaining the machinery and assembling the steel framing

### Applications:

1. Rapid deployment projects
2. Projects in remote locations
3. On-site construction
4. Disaster relief and reconstruction



# Fully Integrated Design & Build Software

Building design, engineering, detailing, quoting, production planning, factory management, machine control and materials management have all been fully integrated by FRAMECAD™ into one comprehensive software suite which includes:

## FRAMECAD™ Architect

- Simultaneous 2D and 3D modeling of structures, interior design and landscape design
- Interactive walk-throughs allow you to navigate through the design with your clients and make changes along the way
- Extensive reference catalogue allows you to select from thousands of pre-defined objects and materials which you can change on the fly
- Parametric design and building element connectivity means building components such as doors, walls, roofs, and floors are intelligently linked to one another making alterations quick and easy
- Detailed bill of materials lets you easily generate a complete and accurate schedule of all materials, including window and doors
- All measurements are calculated from the 3D model and include counts, lengths, areas and volumes

## FRAMECAD™ ProDesign

- Optimises designs to ensure the most efficient use of materials, without compromising structural integrity, resulting in reduced material costs, less waste and increased profitability
- Allows you to design and engineer structures for a wide variety of environments and weather conditions (e.g. high wind zones or heavy snow loads)
- Complies with numerous international building standards and codes helping streamline local approval processes
- Customised documentation service takes account of the steel section profile, steel grade, steel gauge and building environment, providing local authorities with access to reference documents to facilitate speedy approvals

## FRAMECAD™ Detailer

- 3D view means the framing can be shown in a virtual walk-through format to help customers visualise the design, and for draughts people to check for design errors in order to eliminate on-site correction time
- Powerful automated tools such as Auto Dimension, Auto Roof and Auto Wall help increase productivity, reduce errors and speed up design turn around
- Fully integrated for building information modeling, FRAMECAD™ Detailer lets you manage building data during its life cycle through an XML interface providing a standard information exchange format
- Enables you to automatically transfer design information from architectural detail into framing layout, then on to production

## FRAMECAD™ Factory

- Production planning
- Measurement of staff and manufacturing productivity
- Tracking of materials and quality assurance
- Preventative maintenance reports on production equipment
- Remote diagnostics
- Staff output and efficiency optimisation reporting
- Production line benchmark reporting



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